



## **3<sup>rd</sup> ANNUAL REPORT**

1 February 2017 to 31 December 2017

### **Enhanced Local Value Addition and Strengthening Value Chains**



**Funded by: The European Union**

**Implemented by:**

**The United Nations Industrial Development Organization  
(UNIDO)**

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### *List of Acronyms*

AMTIP:	Agricultural Marketing and Transformation Investment Programme
APC:	Agro Processing Centre
BEAD:	Bahr El Ghazal Effort for Agriculture Development
EU:	European Union
FAO:	United Nations Food and Agricultural Organization
FSTP:	Food Security Thematic Programme
GBEG:	Greater Bahr el Ghazal
GIZ:	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
MOA:	Ministry of Agriculture
NBG:	Northern Bahr El Ghazal
PPP:	Public Private Partnership
SORUDEV:	South Sudan Rural Development Programme
SSDP:	South Sudan Development Plan
UFSLM:	Urban Food Security, Livelihood and Market Project
UNIDO:	United Nations Industrial Development Organizations
UNOPS:	United Nations Office of Project Services
WBG:	Western Bahr El Ghazal
WFP:	United Nations World Food Programme
ZEAT:	Zonal Effort for Agriculture Transformation

## *1. Description*

**1.1. Name of Coordinator of the grant contract:**

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**1.2. Name and title of the contact person:**

- Mr. Stavros Papastavrou (Project Manager)
- Mr. Ram Kishore Prasad Singh (Chief Technical Advisor)

**1.3. Name of beneficiary in the Action:**

- United Nations Industrial Development Organisation (UNIDO)

**1.4. Title of the Action:**

- Enhanced Local Value Addition and Strengthening Value Chains

**1.5. Contract number:**

- FED/2014/353-881

**1.6. Start date and end date of the reporting period:**

- 1<sup>st</sup> Feb 2017 to 31<sup>st</sup> Dec 2017

**1.7. Target country(ies) or region(s):**

- Great Bahr el Ghazal Region of South Sudan: Northern Bahr El Ghazal (NbG) , Western Bahr el Ghazal (WbG), Lake and Warrap States

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

- Target groups - Individuals or group of farmers (new and already existing producer groups) in the four states of the Greater Bahr el Ghazal region.
- Final beneficiaries - Farmers, micro-scale entrepreneurs, rural communities and the government institutions (800 numbers)

**1.9. Country(ies) in which the activities take place:**

- Great Bahr el Ghazal Region of South Sudan: Northern Bahr El Ghazal (NbG) , Western Bahr el Ghazal (WbG), Lake and Warrap States

## *2. Progress on Implementation of Action Activities*

### **2.1.Executive summary of the Action**

During the reporting period the majority of the remaining activities related to the implementation of the value chain upgrading strategies were completed. Target beneficiaries under the sorghum and groundnut value chains were trained on improving post-harvest management and storing practices and supported with low cost storage solutions such as hermetic bags and metallic bins. Due to the new knowledge acquired and with the use of the improved post-harvest practices farmers were able to reduce post-harvest loss of the food grains up to 30%. Fisher folks were trained on improved fish handling and preservation techniques and supported with smoking oven and other tools as well as with equipment for producing high value products such as smoked, dried and fried fish. The butchers, flyers and government officials from the Ministry of Animal Resource were trained on improved slaughtering, flaying, de-fleshing and de-fatting techniques and handed over a set of tools and protective gears in order to improve the quality of the production of hides and skins. The hide and skin processors and traders were also trained on improved processing, preservation and marketing techniques and supported with stores for the safe and long-term storage of hides and skins. The stores will be utilized to store the processed hides and skins awaiting export and marketing. The building size is 10mx5m and each store is expected to store up to 3,000 hides and skins.

New mechanization technologies such as the use of paddy reaper and paddy thresher were introduced and rice farmers together with the Aweil Rice Scheme staffs were trained on basic use and maintenance of paddy reapers and threshers. Moreover, in order to facilitate safe storage of the paddy and rice produced at the rice mill, the project procured 5,000 polythene plastic bags of 100 kg capacity for the Aweil Rice Scheme and the bags were delivered during early 2017.

Training manuals on improved fish handling and preservation techniques, improved production and preservation techniques of hides and skins and business management, accounting, bookkeeping and basic entrepreneurship were developed and shared with the project stakeholders.

Altogether 1,127 stakeholders and beneficiaries have benefited from different capacity building activities against the target of 800 of which nearly 33% are women. A number of training were organized to equip both project beneficiaries and stakeholders with fundamental knowledge on different aspects of business management, accounting, book keeping and basic entrepreneurship skills. A summary of the training course and number of beneficiaries are depicted in the table below:

No.	Subject	Target	Achievement	Male	Female
1	Training of farmers on post-harvest management and storage of food grain crops	300	475	305	170
2	Training of trainers (TOT) on post-harvest Management and storage of food grain crops	20	38	33	5
3	Training of fisher folks on improved fish handling and preservation techniques	40	50	44	6
4	Training of butchers and flyers on improved slaughtering and flying techniques	80	52	52	0
5	Training of traders/skin processors on improved processing and preservation techniques	20	45	41	4
6	Training of government officials on improved hide and skin production and processing	0	11	11	0
7	Training on business management, accounting, bookkeeping and entrepreneurship	120	109	98	11
8	Training Aweil Rice Scheme staff on the use of Reaper, Thresher and Rice Mill	40	30	30	0
9	Training on fabrication of metal workers on fabrication of improved storage structures (metal bins/silos)	20	20	20	0
10	Training on monitoring and evaluation for government officials	20	0	0	0
11	Training of famers on improved sorghum and groundnut processing methods	120	297	123	174
12	Training on operation and maintenance of power tools and equipment for the operators of the machines at the APCs	20	0	0	0
<b>Total</b>		<b>800</b>	<b>1,127</b>	<b>757</b>	<b>370</b>

Establishment of the four agro processing centres in the target areas with basic facility for primary processing of sorghum and groundnut such as production of sorghum flour, production of groundnut paste and groundnut oil has been completed. The installation and testing of machines at different APCs and rice mill has also been completed. A management

board has been constituted for the facilities established. The main role of the management board is to take strategic decisions so as to ensure the smooth operations of the centre and the best possible use of the facility. At the same time, the board has to provide a reliable service to the local community at affordable prices. The MOUs has been developed explaining the roles and responsibilities of the main stakeholders of the agro processing centre which will work as the framework to coordinate the activities and ensure that each organization understands and fulfil their roles and obligations and they are complementary, mutually reinforcing and help smooth operations of the agro processing centres. Moreover, in order to find out the feasibility of the investment and guide the management of the agro processing centres, draft business plans were prepared for the APCs and Aweil Rice Mill.

In this context, workshops were conducted to link producer groups to the potential buyers as well as develop and strengthen linkages between producers and potential buyers. The overall aim of the workshops was to discuss the marketing challenges faced by the producer groups, deliberate on possible solutions and provide market linkage innovations to empower smallholder producers. This will enable them to choose what to produce, for whom to produce as well as when and at what price to sell. Altogether 297 community members benefited from the workshops of which about 59% (174) were women.

An independent mid-term review (MTR) for the Project was conducted during October - November 2017 by a team consisting of an international consultant and a national consultant. Main objectives of the MTR were to contribute to an improvement of the methodology taken by the Project; contribute to the accountability towards the stakeholders including the donor and make recommendations on whether the action should be continued. In addition, a monitoring mission was also conducted by the EU technical assistance team during December 2017.

## **2.2. Challenges and way forward**

Some of the planned activities such as training of the private operators of the APCs and rice mill on basic repair and maintenance of the power-operated machines could not be completed due to lack of time. Although the basic infrastructure and management for the APCs are in place, the APCs have been facing a number of challenges in the day-to-day operations and maintenance. It was realised that the technical and managerial capacity of the private operators are very limited. Managing the APCs together with the local government is a new experience for the institutions involved. Thus, the private operators require rigorous training on the operation and basic repair and maintenance of the power operated machines such as sorghum mill, groundnut oil extractor, rice mill, etc. Furthermore, building their soft skills capacity such as business management skills, accounting, bookkeeping, group dynamics are also foreseen to ensure long-term sustainability of these centres.

The APCs have been established to help the local community process and add value to sorghum, groundnut and rice. The APCs currently require payment for the services

rendered but the native populations perceive these facilities as support from the donors for the benefit of the local community; therefore, they do not realise the need for payment for the services received. This requires further engagement with the local community to make them understand the issues related to sustainability of the centres and the requirement to pay for the services either in cash or in-kind by sharing part of the final product or raw materials.

Moreover, due to prolonged rainy season and insecurity along some of the roads leading to APCs, access has been constrained during the rainy season and some of the planned capacity building activities could not be implemented. Therefore, UNIDO has requested for a second no-cost extension of at least six months to attend to above issues. During the extended period, the project will review the operation model, management structure and ownership of the facility established by the project and do corrective measures in consultations with the stakeholders to enhance sustainability of the APCs, rice mill and other facilities. The project will implement remaining capacity building activities related to operation and management of the rice mill and APCs.

In addition, operation manuals will be developed for the different machines at the APCs keeping in mind the level of education of the target beneficiaries and other stakeholders so that it can easily be understood and used by all target groups. It is also envisioned to arrange a study tour for the APC operators to similar facilities within South Sudan or in neighbouring countries in order to determine possible improvements to the management structures of the APCs. Marketing support will also be provided to operators to establish a brand, including basic equipment and materials for the packaging of processed products.



## 2.3. Results and Activities

### Output 1: Potential commodities identified and upgrading strategy for at least five value chains finalized

Activities related to the Output 1 have been completed before this reporting period and reported earlier. Please refer 1<sup>st</sup> and 2<sup>nd</sup> annual reports.

### Output 2: Five upgraded value chains strategies implemented

#### Activity 3: Implementing the upgraded strategies for the selected five commodities

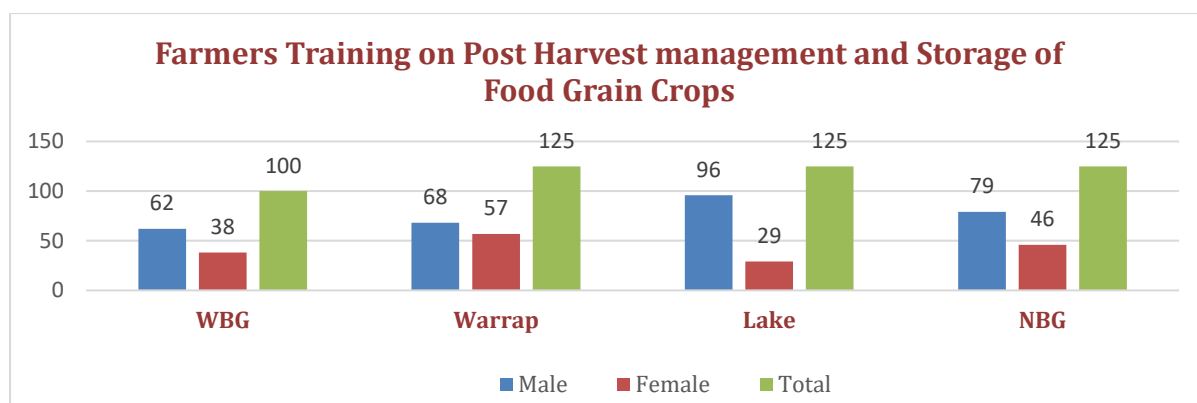
Implementation of the value chain upgrading strategies started with consultative meeting with different stakeholders to identify target locations in different states, sensitization of the local community and stakeholders, objectives and proposed interventions related to each commodity, selection of target beneficiaries and implementation of the identified activities and other related support. Major activities related to the implementation of the upgrading strategies for the identified value chains are summarised as follows:

#### Sorghum and groundnut

Farmers in the GBEG region are still using rudimentary techniques of production and post-harvest management; therefore, post-harvest losses of food grains are very high in the project target areas due to the use of traditional practices and lack of knowledge and technical know-how about the improved post-harvest



management practices. Therefore, farmers from the target villages were trained on improved post-harvest management and storage practices of sorghum and groundnut. The main objective of the training programme was to equip participants with knowledge and practical skills on different aspects of post-harvest handling and safe storage of food grain crops. Altogether 475 farmers from 19 target villages were trained on different aspects of post-harvest management and storage of sorghum and groundnut of which more than 35% (170) were women. Training duration was two working days in each location. Training overview has been included as Annexure to this report.



Prior to the start of the training, a training manual on *Post Harvest Management and Storage of Sorghum, Groundnut and Rice* was also prepared and presented before the stakeholders in a workshop for their feedback and inputs for further improvements. The manual was further revised based on inputs received from the workshop participants and other stakeholders. Copy of the training manual is enclosed as Annexure to this report.

In addition, the project introduced low cost storage structures like metallic bins and hermetic bags in the project target areas to assess usefulness of the technology and collect feedback of the farmers about new technology. Thus, farmers were supported with 200 units of metallic bins and 500 sets of Purdue Improved Crop Storage (PICS) bags



in order to promote improved storage method and good practices in the project target locations. The results of the adoption of the improved storage methods and practices were assessed during late 2017 and found quite encouraging. Farmers were able to adopt new storage methods quite successfully and able to significantly reduce post-harvest losses up to 30% as compared to the traditional storage methods.

In order to promote local value addition, four agro processing centres have been established in the GBEG region with basic facility for primary processing of sorghum and groundnut such as production of sorghum flour, production of groundnut paste and groundnut oil.

Moreover, three workshops were conducted to link the producer groups to the potential buyers as well as to develop and strengthen linkages between them. The overall aim of the workshop was to discuss the marketing challenges



faced by the producer groups, deliberate on possible solutions and provide market linkage innovations to empower smallholder producers. This will enable them to choose what to produce, for whom to produce as well as when and at what price to sell. In addition to this, empowering the producers with the marketing skills, networking and communication skills, the workshop also linked the potential buyers to the producers within and outside their states. During the workshops, possibilities were also explored to organize the producer groups from different villages to form a network or association in order to explore and promote collective marketing of some of the commodities within the state or the GBEG region.

The workshops were organized at the APCs to enable the beneficiaries to see the equipment in the centres, and to discuss with the private operators and the county agriculture department to brief them on the terms and conditions in using the facilities. Commodity traders and buyers from the state capital and the nearby trading centres were invited during the workshop to brief the farmers on their quality and quantity requirements. Representatives from the MOA and county officials graced the occasion and explained to the farmers about the government policies and services offered by the local government for strengthening the agriculture sector in the state. After the workshop, community members had hands on experience on using the different machines at the APCs. Altogether 297 community members benefited from the workshops of which 58.6% (174) were women.



### *Hide and Skin value chain*

Livestock is considered not only an important economic asset but also a socio-cultural component of the majority of the population in South Sudan. Great Bahr el Ghazal represents over 46 % of the livestock of the country, hides and skins being one important segment of the value chain. UNIDO together with GIZ planned to capitalize on this and work closely for better utilization of hides and skin in the GBEG region. GIZ planned to upgrade the basic infrastructure of the four identified slaughterhouses at Wau, Aweil, Kwajok and Rumbek whereas UNIDO was entrusted to improve capacity of butchers, flayers, processors, traders and other stakeholders involved in the hide and skin value chain to produce and market better quality hide and skins. At present the slaughterhouses in the GBEG region lacks the basic facilities including appropriate equipment for slaughtering and flaying. Moreover,





technical skills of the butchers and flayers are also very limited to produce good quality hide and skins. Animals are tied down and killed with the help of normal knives and without adopting modern slaughtering techniques such as the use of stunning guns but only sharp knives are used for bleeding, ripping and flaying. Axes are mainly used for separating the heavy parts such as the neck and legs. There are no pullers or any mechanized means used for moving the animals from one point to the other and animals are dragged after they are tied up for bleeding. Bleeding is done on the ground next to the waste drains that leads to contamination and rupture of veins of the hides. This practice results into unhygienic areas that become the breeding ground for bacteria. Ripping is not done in line but by cutting out useful hide and wasting it. No consistent flaying methods are used and every flayers use the method convenient to them. Ripping knives are also used for flaying which is not appropriate because of its sharp end and straight blade as it causes a lot of knife cuts and holes on hides, thus damaging their quality. Further to this, flayers leave lots of meat and fat on the hide that requires additional labour to remove them.

Based on the assessments conducted, the project decided to train the butchers and flayers' on improving the slaughtering and flaying techniques. In addition, the hides and skin processors and traders were trained on improved preservation techniques. The main objective of the training programme was to equip participants with knowledge and practical skills on different aspects of stunning, animal killing, bleeding, ripping, flaying and processing of hides and skins. A training manual on *'Improved Production and Preservation Techniques of Hides and Skins'* was prepared and a total of 64 (04 Female) butchers, flyers and government officials were trained on improved slaughtering, flaying, de-fleshing and de-fatting techniques at four different locations (Wau, Aweil, Kwajok and Rumbek). Training duration was three working days at each location.



In addition, 46 hide and skin processors and traders were trained on improved processing, preservation and marketing techniques for three working days at each location. After the training, different groups were supported with a set of improved tools and equipment such as butcher's knife, skinning/flaying knife, de-boning knife, butcher's cleaver, sharpening butcher's steel, cut resistant glove, meat workers apron, knife sheath, meat cutters board, meat sharpening stones, rubber boots, measuring tape, tarpaulin sheet, plastic bucket, plastic mug, platform weighing scale, wheel barrow, tool carrying bag, etc.



At present the processed hides and skin are stored in semi-permanent structures made from the local materials which has very limited protection from rain, sun and rodents. Quality of the stored hides and skins is reduced over time due to rain and attack of insects and pests. GIZ had planned construction and renovation of the slaughterhouses but there was no any plan for the construction of stores for the processed hides and skins. Therefore, the local government officials and hides and skin processors and traders requested UNIDO to construct some storage facility for their safe storage. Hence, four low cost stores for safe storage of the processed hides and skins were constructed adjacent to the existing slaughterhouses in Wau, Kuajok, Aweil and Rumbek. The stores will be utilised to store the processed hides and skins awaiting export and marketing. The building size is 10mx5m and each store is expected to store up to 3,000 hides and skins. Construction of the stores has already been completed awaiting formal handover of the facility to the local government and end users.



If extension of the project is granted then it is planned to organise the butchers, flyers, processors and traders at each location into groups and register them as cooperatives. In addition, it is intended to link the different groups with each other and form a network or an association aiming at liaising the outside traders collectively to market hides and skins to other parts of the country and internationally.



### *Fish value chain*

The fish value chain was only implemented in Lake Yirol in the Lake state. In early 2017 a mission was undertaken to carry out the needs assessment in and around Lake Yirol. The goal was to inform the local government and fishermen about the planned activities related to fishery value chain. During the mission, in consultations with the fisher folks and local government, suitable locations for constructing fish smoking ovens were identified and fisher folks were organised into groups for further support.

The assessment identified the high post-harvest losses in the target areas due to the lack of knowledge on improved fish handling techniques, inappropriate methods for fish handling, preservation and other post-harvest practices. Thus, it was recommended to build the capacity of the fishermen working around the Lake Yirol area by training them on improved fish handling and preservation techniques. The main objective of the training programme was to equip participants with knowledge and practical skills on different aspects of fish handling, preservation and processing to produce different value-added products, packaging, storage and transportation of fish as well as marketing for fresh and processed fish.

A training manual on “*Improved Fish Handling and Preservation Techniques*” was developed before the training and shared it with the project partners and stakeholders. The copy of the training manual is enclosed as Annexure to this report. Moreover, two smoking ovens were constructed at Yirol and Pagerau. The fisher folks were involved in the construction of the improved smoking ovens to ensure the maintenance of the oven and also to be able to construct similar ovens in other locations when is needed by the local community. A total of 50 fisher folk were trained on improved fish handling and preservation techniques of which six were female. The duration of training was five working days at each location.

After the training the fisher folks were supported with some tools and equipment such as smoking oven [made of used oil drum], charcoal smoking oven, double slope drying rack, single slope drying rack, insulated ice box, galvanized wire mesh, mosquito wire mesh,





chicken wire mesh, plastic sheets, different types of knives and other working tools such as pangas, axe, pick axe, crow bar, shovels, frying pan, cooking saucepan of different sizes, perforated plastic drum for wet salted fish, perforated plastic drum installed with washing handle tape, plastic jerricans and basins, perforated and scooping spoon, drying trays, plastic drums, measuring tapes, etc. to help them carry out better fish handling and preservation techniques.

### **Rice value chain**

Under the Aweil Rice Scheme (ARS) around 600 farmers cultivate a land of nearly 3,100 feddans for the production of rice every year. The annual production of rice under the ARS is approximately 800 tonnes. During the assessment, it was identified that the harvesting and threshing is done manually resulting in higher losses for the farmers. Therefore, the project decided to introduce paddy reaper and motorised thresher to improve the efficiency of the post-harvest processing. Accordingly, two paddy reapers and two paddy threshers were procured and handed over to the Aweil Rice Scheme and 30 farmers and rice scheme staffs were trained on use and basic maintenance of paddy reapers and threshers during last harvesting season.



In addition, a single pass two stage rice mill has been procured and installed under the premises of the Aweil Rice Scheme. ARC is lacking resources to construct stores and procure storage bags. In order to facilitate the safe storage of the paddy and rice produced at the rice mill, it was necessary to support the Aweil Rice Scheme with good quality bags made of polyethylene plastic to prevent damage to the paddy and rice by pests and weevils. Therefore, the project procured 5,000 polyethylene plastic bags of 100 kg capacity for the Aweil Rice Scheme and the bags were delivered to the Aweil Rice Scheme during early 2017.



**Output 3: Capacitated at least 800 actors performing in value chain and practicing the technological and business tools for value addition enhancement**

*Activity 4: Building capacity of at least 800 actors to operate in the value chain and to increase local value addition.*

The ultimate goal was to building the capacity of around 800 actors operating in the identified value chain in terms of improving their knowledge and technical skills in production, local value addition and marketing of products and services. As shown in the table below, till date altogether 1,127 beneficiaries and stakeholders have been directly benefited from different training and workshops conducted by the project of which 32.8% (370) were women.

**Table: Activity wise target and achievements**

No.	Subject	Target	Achievement	Male	Female
1	Training of farmers on post-harvest management and storage of food grain crops	300	475	305	170
2	Training of trainers (TOT) on post-harvest Management and storage of food grain crops	20	38	33	5
3	Training of fisher folks on improved fish handling and preservation techniques	40	50	44	6
4	Training of butchers and flyers on improved slaughtering and flying techniques	80	52	52	0
5	Training of traders/skin processors on improved processing and preservation techniques	20	45	41	4
6	Training of government officials on improved hide and skin production and processing	0	11	11	0
7	Training on business management, accounting, bookkeeping and entrepreneurship	120	109	98	11
8	Training Aweil Rice Scheme staff on the use of Reaper, Thresher and Rice Mill	40	30	30	0
9	Training on fabrication of metal workers on fabrication of improved storage structures (metal bins/silos)	20	20	20	0
10	Training on monitoring and evaluation for government officials	20	0	0	0
11	Training of famers on improved sorghum and groundnut processing methods	120	297	123	174
12	Training on operation and maintenance of power tools and equipment for the operators of the machines at the APCs	20	0	0	0
<b>Total</b>		<b>800</b>	<b>1,127</b>	<b>757</b>	<b>370</b>



### **Training of Trainers (TOT) on post-harvest management and storage of food grains**

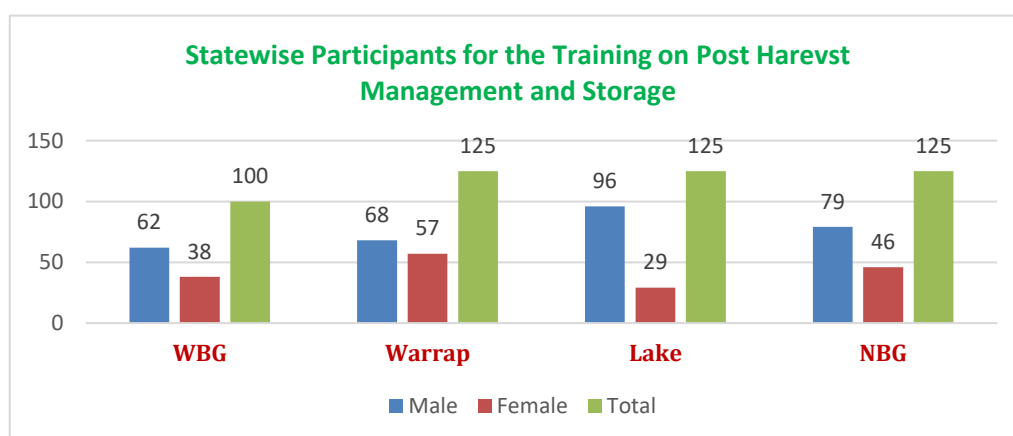
At present knowledge and skills of the extension workers in the project target areas of the GBEG region are very limited on post-harvest management of different food grain crops. Therefore, it was planned to train agricultural extension workers working with the local government and staffs of the partner organization in different states of the GBEG region on post-harvest management and storage of food grain crops. Training of trainers programme was implemented in partnership with the UN World Food Programme (WFP).



Training was conducted for three working days at Wau and a total of 38 participants (05 female) from GBEG region participated in the training programme and improved their knowledge and skills on advanced post-harvest management practices including storage and store management and collective marketing. Number of participants from WBG, Warrap, NBG and Lake States were 7, 11, 14 and 6, respectively.

### **Training of farmers on post-harvest management and storage of food grains**

Altogether 475 farmers from 19 target villages were trained on improved post-harvest management and storage practices. State wise details is presented in below graph.



### **Training of fisher folks on improved fish handling and preservation techniques**

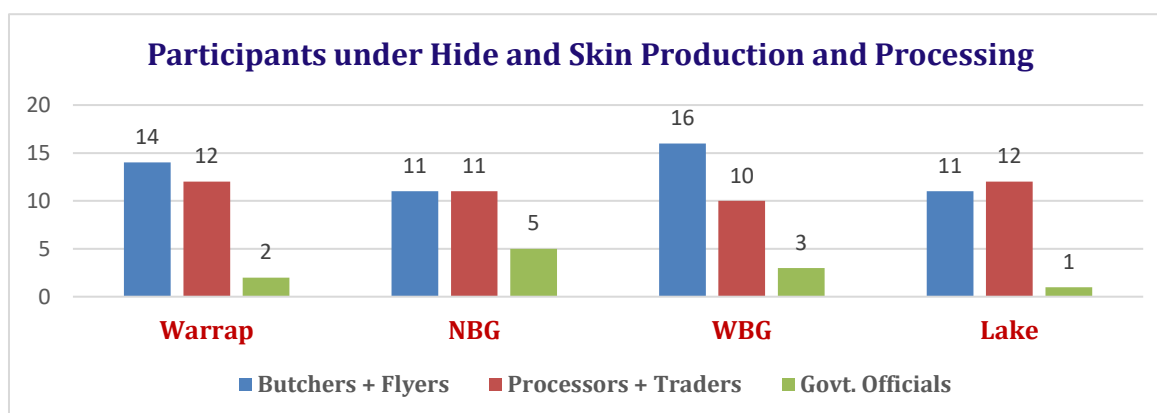
A total of 50 fisher folks was trained on improved fish handling and preservation techniques at two different locations in the Lake State as shown below.

Place	Male	Female	Total
Yirol	21	4	25
Pagarau	23	2	25
<b>Total</b>	<b>44</b>	<b>6</b>	<b>50</b>

### **Training of butchers, flyers and hide and skin processors and traders**

Altogether 63 butchers, flyers and government officials from the ministry of animal resource were trained on improved slaughtering, flaying, de-fleshing and de-fatting techniques and handed over set of tools and protective gears for production of better quality of hides and skins. Moreover, 45 hide and skin processors and traders were also trained on improved processing, preservation and marketing techniques. State wise participants details are depicted in below table and graph.

State	Total	Male	Female	Butchers + Flyers	Processors + Traders	Govt. Officials
Warrap	28	27	1	14	12	2
NBG	27	24	3	11	11	5
WBG	29	29	0	16	10	3
Lake	24	24	0	11	12	1
<b>Total</b>	<b>108</b>	<b>104</b>	<b>4</b>	<b>52</b>	<b>45</b>	<b>11</b>

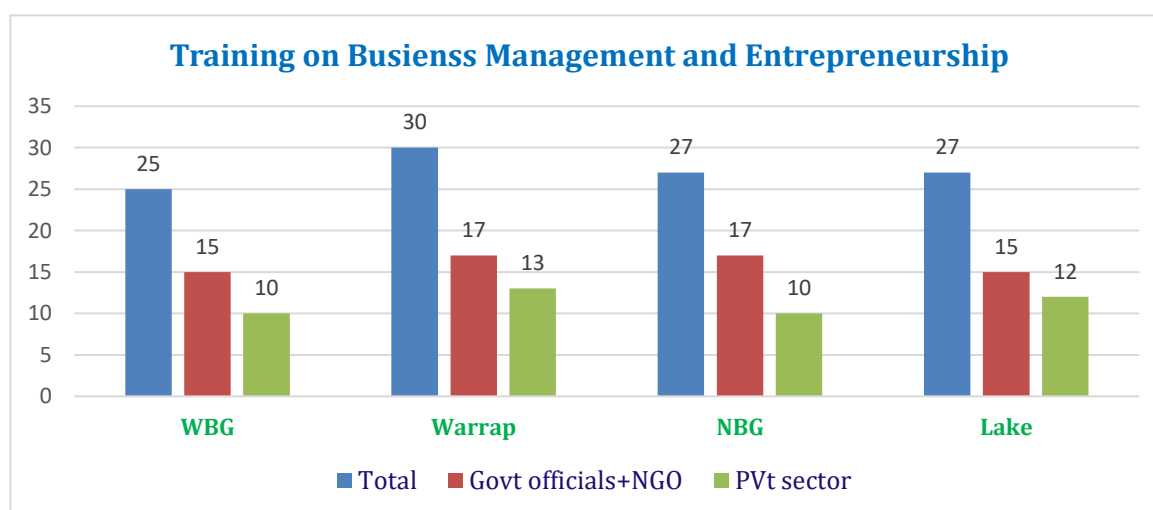


### **Training of stakeholders on basic entrepreneurship and business management skills**

UNIDO has established four agro processing and training centres in the GBEG region. In addition, the Aweil Rice Scheme has been supported with equipment like power reaper and paddy thresher for promoting mechanization and a small capacity rice mill to locally produce good quality rice. The APCs and rice mill has been established under the PPP model in which the local county government are the legal owner of the facility, but it is operated and managed by private operators identified for the purpose. These centres are to be self-sustaining and to be operated on profit but at present the local stakeholders have very limited business management skills including the knowledge on accounting and bookkeeping.

Therefore, project organized training on basic entrepreneurship and business management skills, fundamentals of accounting and book keeping for different stakeholders including state and county government officials, representatives from Chamber of Commerce, members of the management board of the agro processing centres and rice mill and members from the board of management of slaughterhouses.

A training manual *Business management, Accounting, Bookkeeping and Basic Entrepreneurship* was developed prior to the training and altogether four training sessions were conducted at different locations in the GBEG region during April-May 2017. A total of 109 stakeholders and project beneficiaries attended the training programme out of which 11 were female. Out of the total participants, nearly 59% were the representatives from the government department and NGO partners and rest 41% were from the private sector. Training duration was three working days at each location. The main objective of the training programme was to equip participants with fundamental knowledge on different aspects of business management, accounting, bookkeeping and basic entrepreneurship skills. Major topics covered during the training were basic entrepreneurship, importance of bookkeeping, how to prepare and maintain accounting records, how to calculate profit and loss, managing business cash and accounts, financial and marketing management, etc. State wise distribution of participants is as follows:



State	Total	Male	Female	Govt. officials + NGO	Private Sector
WBG	25	20	5	15	10
Warrap	30	27	3	17	13
NBG	27	24	3	17	10
Lake	27	27	0	15	12
Total	109	98	11	64	45

**Output 4: Four agro processing centres established and fully equipped in selected locations and farmer organizations benefitted directly from project assistance for the establishment of self-sustainable micro-processing pilot centres**

**Activity 5: Plans and design drawings for four Agro-processing pilot centres finalised, APC established in selected locations and fully equipped and commissioned**

#### APC design and location

Four agro processing centres (APCs) with links to the producer groups in the nearby areas have been established at trading centres along the feeder roads being constructed by UNOPS. Locations of the agro processing centres are at Kangi market in the Jur River County of the Western Bahr-el-Ghazal State, Gok Machar market in the Aweil North County in the Northern Bahr-el-Ghazal State, Ayein market in the Twic County in the Warrap State and at Aduel market in the Rumbek East County in the Lake State. Kangi market APC is located at the Kangi to Kayango road whereas the Gok Machar APC is located on the Gok Machar to Mayom Angok road. Ayein APC is situated on the Achol Pagong to Panlieth road constructed by UNOPS in Warrap state.

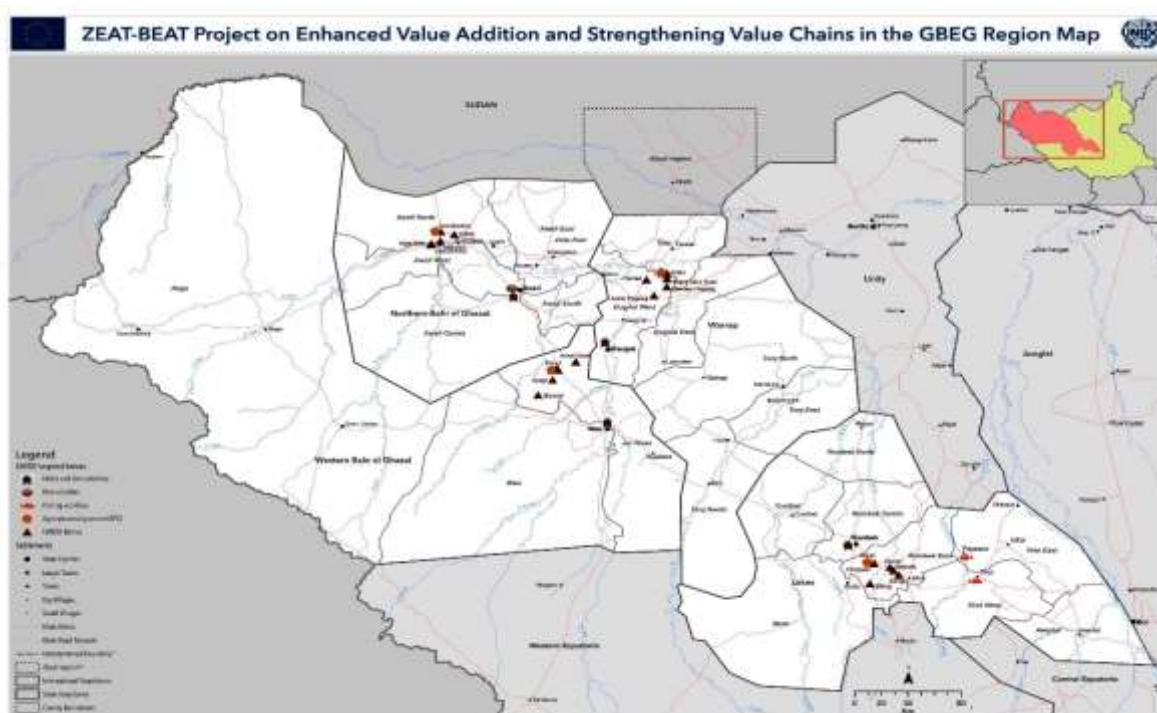


Fig: Showing locations of the Agro Processing Centres in the GBEG Region

Each APC consists of one hall (processing area), two rooms (one office room and one store) as well as one toilet and shower block within a fenced premise. The main building has been constructed using red bricks and standard pre-casted hollow cement blocks. The main building is of 50 sq. meter area (10m x 5m) which consists of one store and one office each of 2.5m x 2.5m and working area of 37.50 sq. meters (7.5m x 5m). The toilet block consists of one pit latrine with a squatting hole and one shower room. The toilet block has been roofed



with corrugated zinc sheets. Moreover, during 2017 a veranda or shelter of 10mx3m has been constructed at each APC which will serve as waiting area for the customers and can also be used for meeting and training purposes. The Gokmachar APC area is situated in one side of the market which gets flooded during rainy season; therefore the APC area has been raised with murrum filling and has easy access round the year.



The total fenced area is around 400 square meters with 80 meters length and 2 meters height with iron pipe poles, barbed wire purlins and covered with chain link wire mesh to prevent animal without hurt. The main entry gate consists of steel gate size of 4.2m wide x 2.1m high comprising two numbers of open able double leaf each size 2.1m x 3.0m high, complete with all iron monger and locking devices, including three coats of approved quality oil paint.

It was decided that APC will follow the guidelines prepared by the GIZ on administrative and legal framework for Public Private Partnership in the GBEG Region for operation and management of the slaughterhouses and APCs. It will follow the same approach in which the local government will be the legal owner of



the centre, but it will be managed and operated by a private operator identified by the local authorities in consultations with the project. But due to some unavoidable circumstances GIZ had to scale down their activities in the GBEG region after June-July 2016 incidents in Wau and Juba, respectively, and finally closed down their operations in South Sudan by mid-2017; thus PPP guidelines were never prepared and tested. However, UNIDO tried to adopt the operation model which GIZ had developed for the operation and management of the Aweil slaughterhouse.

The project has established facility for sorghum processing at Kangi and Ayien APCs due to high production of sorghum in the nearby Payams. Aduel and Gokmachar have main facility for groundnut processing because Aweil North and Rumbek east Counties have higher production of groundnut. In addition, rice milling facility has been established at the premises of the Aweil Rice Scheme. Apart from the power operated sorghum mill and groundnut oil mill, manual sorghum grinder and groundnut shellers have been installed to facilitate manual grinding and shelling of sorghum and groundnut, respectively.

### **Procurement, installation and testing of equipment and machinery**

Procurement process of the required equipment and machinery for the agro processing centre and Rice mill had been completed by 2016. Equipment reached to Juba in Dec 2017 but could not be transported to the project locations due to inaccessibility of some of the roads as a result of prolonged rainy season and poor security situations along roads. After improvement of security situation by early 2017, installation and testing of machines at different APCs and rice mill was completed by mid-2017. Moreover, UN World Food Programme (WFP) donated five mini trucks to be used at the four APCs and Aweil Rice Mill for local transportation of food grain from the nearby target villages to the APCs or rice mill. After installation of the machines the private operators were trained on basic operation and use of each machine. List of tools and equipment installed at different agro processing centres are as follows:



**Table 2: List of equipment and machinery to different centres**

S. N.	State	Centre/location	Item and Quantity
1.	Lakes	Aduel	Groundnut oil mill (1), Sorghum grinder (2), Groundnut sheller (2) and mini truck (1)
2.	Warrap	Ayein	Sorghum mill (1), Sorghum grinder (3), Groundnut sheller (1) and mini truck (1)
3.	Western Bahr El Ghazal	Kangi	Sorghum mill (1), Sorghum grinder (3), Groundnut sheller (1) and mini truck (1)
4.	Northern Bahr El Ghazal	Gok Machar	Groundnut oil mill (1), Sorghum grinder (2), Groundnut sheller (1) and mini truck (1)
5.	Northern Bahr El Ghazal	Aweil Rice Scheme	Paddy reaper (2), Paddy thresher (2), Rice mill (1) and mini truck (1)

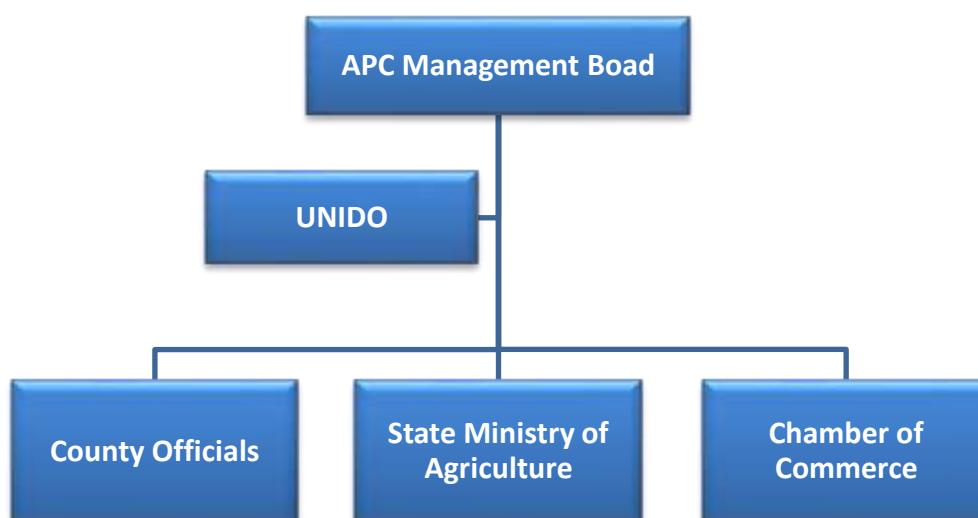
In addition, the agro processing centrecentres were also supported with some office furniture such as two office tables, six office chairs, one file cabinet, etc. and items for storage of products like one storage shelf and 10 wooden pallets.

Altogether three workshops were conducted at different target locations to inform the local community about the facilities established at the agro-processing centrecentres. After the workshop, community members had hands on experience on using different machines at the

agro-processing centres. Altogether 297 community members benefited from the workshops, of which 174 were women. During the testing of the machines, it was observed that the screen size supplied together with the sorghum grinder is quite large and the flour quality is not optimum according to the demand of the community. Thus, it was decided to replace the screen with smaller size hole. The screen quality available in Juba was not of desired quality and strength; finally, it was decided to import it through the supplier and manufacturer of the machines. The project also decided to import other critical components and fast moving spare parts which will be required during next two to three years. The procurement process for the spare parts has already been completed and it is expected that the spare parts will be delivered to the project sites by early 2018.

### **Establishment of management board for the agro-processing centres**

Project has established a management board for each centre with representations from the county, state ministry of agriculture, Chamber of Commerce and UNIDO. The main role of the management board is to take strategic decisions to ensure smooth operations of the centre and best possible use of the facility within the centre and provide reliable service to the local community at affordable price. The board approves the service fee to be charged; budgets and progress reports; expenditure and audit reports; decisions related to additional investment and expansion; principles and levels of revenue sharing among the partners; and



the appointment of a manager for the facility in consultations with the private operator.

The board will meet at least twice a year, but as often as requested by at least 51% of its members. The board will be chaired by the County Chief, which will also hold the secretariat. The secretariat will be responsible for the preparation of agendas, minutes and memos for the board meetings. The private operator will submit to the secretariat income and expenditure reports for distribution to the board members monthly. Annual budget and half yearly progress and expenditure reports will be prepared by the private operator at least two weeks ahead of a scheduled board meeting and secretariat will distribute them by at least one week before the meeting.



In addition, a MOU has been developed explaining roles and responsibilities of the main stakeholders of the agro processing centre i.e. local county authority, state ministry of agriculture and UNIDO. The ambition of the MOU is to develop a coordination framework to ensure that each organization understands and fulfils its roles and obligations and that they are complementary, mutually reinforcing and help the smooth operations of the agro-processing centres. The MOU will document the collaborative efforts by the three parties (the Ministry, the County and UNIDO) towards the sustainable use of the facility and operation and management of the agro processing centres. In addition to the MOU, the project will also assist the county officials to develop a detail contract agreement with the operator selected. The agreement summarizes the roles and responsibilities of the two parties for the day to day management of the agro-processing centres.

### **Business plan for the agro processing centres**

In order to find out the feasibility of the investment and guide the management of the agro-processing centres, draft business plans were prepared for the APCs and Aweil Rice Mill. The business plan has laid out the purpose, products, pricing, governance, management and marketing strategy of the centre. The ultimate goal of the business plan is to guide management decisions that ensure long term operations of the centre and a fair distribution of proceeds amongst the partners in the venture. The business plan shall be updated annually on the basis of performance of the centre against the set targets. Calculations are based on projections and assumptions because very limited reliable quantitative data are available on the current agricultural production and productivity in the area around the APCs. The SWOT analysis will guide and help the management to utilize the available opportunities based on existing strengths and overcome challenges and weaknesses.

### **Challenges faced by the APCs**

The basic infrastructure and management for the APCs are in place as of end of 2017, however the APCs have been facing a number of challenges in the day to day operation and maintenance. During the initial discussions with the private operators of the APCs and the local government, it was realized that their technical and managerial capacity are still very limited. Most of the private operators are business person from the local community with good experience in mainly trading goods and services but their technical capacity to operate and maintain machines is inadequate. Moreover, managing APC together with the local government is a new experience for them. Private operators need more rigorous training on operation as well as on basic repair and maintenance of the power operated machines such as sorghum mill, groundnut oil extractor, rice mill, etc. Furthermore, building their capacity on soft skills such as business management skills, accounting, bookkeeping, group dynamics are also foreseen to ensure long term sustainability of these centres. During the meetings and the discussions with the stakeholders it was observed that the productivity of the crops in the project target area is still very low and farmers due to the lack of financial capacity generally prefer to sell their produce immediately after harvest without much value addition, not waiting for better price in the near future.

APC facility has been created to help local communities to process sorghum, groundnut and rice and get value added products such as sorghum flour, groundnut paste, groundnut oil and rice with payment of a fee for the services rendered. However, the local community perceive these facilities as a support from donors and, as a result, the beneficiaries do not realise the need to pay for the services they have received. Further engagement of the local community to make them understanding issues related to sustainability of the centres is required. The question of payment of the services either in cash or in-kind by sharing part of the final product or raw materials is crucial.

Higher turnover of the local government officials is one of the main challenges that the project has faced during the project life span. Frequent changes of the government officials require continuous engagement from the project to update the new officers about the project's objectives and approach towards management of the processing centres. Since officials themselves are not sure how long they are going to be in office, the local government do not pay much attention towards functioning of APCs. On the other hand, due to frequent changes in the local government the private operator remains in fear that the new officer may not respect the agreement made by their predecessors and may replace them anytime and handover it to any new operator. Therefore, the operators are not paying due attention towards operation and management of the processing centres. In addition, the private operators think that according to the agreement the local government will take the lion share of the profit without offering any services. This also de-motivates them to invest much of their time and resources. On the other hand, the government officials expressed their concern that the operator may not record properly the income received because they have to share it with other parties and keep aside some fund for future investments. Thus, the project needs more time to attend to above issue and develop and implement activities to ensure sustainability of the processing centres and rice mill.

## 2.4. Mid Term review of the Project

An independent mid-term review (MTR) for the Project was conducted during October - November 2017 by a team consisting of an international consultant and a national consultant. The main objectives of the MTR were to contribute to the improvement of the methodology taken by the Project; contribute to the accountability towards the stakeholders including the donor and make recommendations on whether the action should be continued. The key questions were to confirm if the project objectives, target groups and methodology remained relevant taking into account the changing environment; to what extent the project has achieved their objectives (expected outputs), and measures taken that there should have been obstacles to achieve them; and if there is the possibility to replicate or to scale up the results.

The mid-term review team made an overall assessment of the project, covering the questions related to the project assessment based on project design and implementation process as well as the five evaluation criteria from the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD/DAC). The evaluation team also proposed practical recommendations for follow-up actions, and identified lessons to be learnt and to be used for other similar projects. The copy of the MTR report is enclosed separately as Annexure to this report. However, the main results of the MTR is summarised below:

- The project was assessed based on the five evaluation criteria according to the following six-point system: highly satisfactory, satisfactory, moderately satisfactory, moderately unsatisfactory, unsatisfactory and highly unsatisfactory.
- The project has high relevance, assessed from its consistency with South Sudan's development as well as agricultural development policies; the beneficiaries' needs for value chain upgrading for food security; UNIDO's industrial development policies; and the donor's development assistance policies to South Sudan.
- The effectiveness of the project was assessed as moderately satisfactory since the specific objective will be partially achieved during the project period, while the stakeholders' perception of the results of the implemented value chain upgrading strategies is positive; the beneficiary groups believe that they will be able to increase their income with the knowledge and skills acquired as well as the use of processing facilities of the agro-processing centres (APCs), Aweil Rice Mill or the target slaughterhouses (SHs).
- The efficiency of the project was judged as moderately satisfactory. Many of the Project inputs have been implemented as planned in order to produce intended outputs; and the various cooperation with the implementing partners (IPs) have increased the efficiency of project implementation. However, there have been several delays in project activities that affected the achievement of expected outputs, thus the achievement of the specific objective.

- The impact of the project was assessed as moderately satisfactory. While it is still too early to judge the probability of achieving the overall objective, (actual and potential) positive impacts on gender issues among others have been identified.
- The sustainability of the project was judged as moderately satisfactory from institutional and organizational, financial, technical, and other points of view. While the Project's sustainability in terms of institutional and organizational, as well as technical aspects, is expected to be secured to some extent through the implementation of planned activities with necessary follow-up to be provided, the financial capacity of the Government of South Sudan is too limited to continue value chain upgrading activities on its own.

**2.5. Log frame matrix**

	<b>Intervention logic</b>	<b>Objectively verifiable indicators of achievement</b>	<b>Sources and means of verification</b>	<b>Assumptions</b>
Overall objectives	Contribute to improved food security and income for rural small holders in GBG by enhancing value addition and strengthening value chains	% decrease of target households' food insecurity  (Target: at least 20% target HHs reported reduction in food insecurity)	Baseline assessment  Annual Statistical	Acceptable level of peace
Specific objective	Upgrading value chain strategies implemented and actors capacitated operating in value chain and value addition enhanced.	% increase in processing of commodities at rural level  (Target: at least 30% of the target HHs reported processing of agricultural produce at village or APCs)  Increase in income of the target beneficiaries  (Target: at least 20% of the target HHs reported increase in income))	Baseline study  FAO/WFP annual assessment reports  Annual statistics report	Acceptable level of peace
Expected results / Outputs	1-Potential commodities identified and upgrading strategy for at least five value chains finalized.  2-Five upgraded value chains strategies implemented  3-At least 800 actors capacitated performing in value chain and practicing technological and business tools for value addition enhancement	Number of potential VA analysed (Target : 07 commodities)  Number of VC strategies validated (Target :5VC with implementation plans)  Coordination meetings (Target: 3 per states)  Thematic workshops (Target: 3 per state)  Number of training workshops: 40	Reports of the VA analysis.  Technical fiche by product  Consultant report on VC  Validation workshop reports  5 VC strategy plans documents  Project periodic reports	Acceptable level of peace

	4-12 micro agro-processing pilot centres identified and supported with technical drawing and details and four fully equipped	Number of MOU with the target communities  Target:04	List of trainees  Curricula documents  Training reports  MOU documents	
Activities	<p>Activity 1: Rapid market analysis to identify the potential commodities. Including market assessment in Lake State.</p> <p>Activity 2: Analysing potential commodities and formulating upgrading strategy for at least five potential commodities.</p> <p>Activity 3: Implementing the Upgraded strategies for the five commodities selected.</p>	<p>Field investigation: Staff and expertise back up from UNIDO</p> <p>Study outsources</p> <p>Expertise from UNIDO</p> <p>VC specialist and consultants</p> <p>Validation workshops</p> <p>Coordination with partners, implementing agencies and NGO's</p> <p>Workshops: 6 thematic workshops</p> <p>Meeting :5 /state</p>	<p>Market assessment study document</p> <p>Technical report</p> <p>Technical fiche by product</p> <p>Consultant and study reports on VC upgrading strategies.</p> <p>Validation document from workshop</p> <p>Minutes of meetings</p>	<p>Acceptable security levels.</p> <p>Experts available</p> <p>Project locations accessible for study</p> <p>Acceptable level of peace</p>
	<p>Activity 4: Building capacity of at least 800 actors to operate in the value chain and to increase local value addition.</p> <p>Activity 5: Finalizing plans and design drawings for four agro-processing pilot centres and established in selected locations, fully equipped and commissioned.</p>	<p>Technical and business skills related training.</p> <p>Total number of training workshops: 40</p> <p>Design plan for four centres finalized</p> <p>Four (4) centres constructed and equipped</p>	<p>Training reports</p> <p>List of trainees</p> <p>MOU with communities</p> <p>List of equipment</p>	<p>Acceptable level of peace</p> <p>Stakeholders willing to cooperate with project</p> <p>Acceptable level of peace</p> <p>Round the year accessibility</p>

**2.6. Work plan for additional six months**

No.	Activity	May	June	July	Aug	Sept	Oct
1	Prepare and implement sustainability plan for the APCs to ensure their long-term operability and sustainable management after the project closure.						
2	Sensitize community about the terms of use of the agro processing centres.						
3	Develop manuals for the different machines at the APCs that can also be understood and used by different target groups						
4	Advance training on business management and bookkeeping for the APC operators and government officials.						
5	Training of the beneficiaries on improved sorghum and groundnut processing methods.						
6	Testing of rice mill incl. actions to promote application of the rice mill within the value chain.						
7	Support additional farmers with tarpaulin sheets and PICS bags for drying and storage of food grain crops.						
8	Organize hides and skins processors and traders into group and cooperatives and link them to national and regional traders.						
9	Receive and distribute spare parts to APCs and Rice mill						
10	Plan and implement training on use and maintenance of power operated machines.						
11	Organize exchange visit for the APCs private operators and government officials to the similar facilities within and neighbouring country.						
12	Provide marketing support to operators to establish a brand, including basic equipment and materials for the packaging of processed products						
13	Conduct project closure and administrative hand/over procedures (i.e. Finance and Inventory).						
14	Final evaluation						

### *3. Beneficiaries/affiliated entities and other cooperation*

UNIDO has been working closely with all ZEAT-BEAD, SORUDEV and FSTP partners as well as with the local, state and national government. Regular consultations took place with the officials of the Ministry of Agriculture, Ministry of Animal Resources, Ministry of Trade and Cooperative and Chamber of Commerce of the four states in the GBEG region where project is being implemented. All stakeholders are well informed about the UNIDO approach on value chain development and activities being implemented in different target locations.

During secondary data collection and validation of information received during the stakeholder's workshop close coordination established with the authorities at the County and Payam level. Coordination and sensitization meetings were conducted with beneficiaries at the village, payam and county level.

Linkage and synergies have been developed with other partners of the ZEAT-BEAD project. UNIDO has established agro processing centres in those area where UNOPS is constructing feeder roads. Therefore, close linkages have been established with UNOPS during identification of markets for establishment of the agro processing centres. UNIDO together with UNOPS carried out assessment of market infrastructure in three states and developed joint plan for supporting construction of some additional facilities in the trading centres where agro-processing centres have been established. UNOPS has started construction of market sheds, rehabilitation of bore wells and water supply systems in Kangi, Gok Machar and Ayein market. Also, UNOPS will be constructing toilet blocks for men and women in these market locations.

Moreover, a number of consultative meetings with the EU-funded GIZ AMTIP project were conducted to improve information exchange and sharing experiences on implementation of different project activities. UNIDO identified Hide and Skin as one of the value chains and had been closely working with the GIZ-AMTIP to support slaughterhouse operators, butchers and traders on improving quality of hide and skin, storage facility and market development. A number of meetings and discussions was held during the implementation period to avoid duplication and increase synergy for activities in the targeted areas as well as to learn from each other experience of value chain development. Unfortunately, GIZ had to suspend operations in South Sudan after June-July 2016 crisis and could not complete their planned activities such as construction of new slaughterhouses at Wau and Rumbek. The renovation of the slaughterhouses at Aweil and Kwajok has been completed by GIZ but additional support such as establishment of the slaughterhouses management board, repairing of biogas unit and rehabilitation of the water supply system could not be completed at the majority of the locations and GIZ finally decided to close down their operations in the GBEG region during late 2017. This has greatly affected activities related to the hide and skin value chain in the project target areas.



In addition, GIZ had also planned to construct an agricultural warehouse at Kangi market adjacent to the Kangi APC established by UNIDO. The main goal of the warehouse was to provide flexible, dry, clean and safe storage environment for the local produce traders and essential farm supplies to the local producers and storage and sales of agricultural inputs and veterinary drugs. Another objective was to develop it as an agricultural knowledge and learning centre from where farmers can receive advice on best agricultural and animal husbandry practices. But construction of the agricultural warehouse by the GIZ did not start due to above mentioned reasons.

#### 4. *Visibility*

UNIDO is fully committed to the EU Communication and Visibility Plan of the Indirect Management Delegation Agreement. To recognize and promote EU as donor of the ZEAT-BEAD Project a number of activities have already been initiated as outlined below:

- During all the meeting with the stakeholders and implementing partners it was recognised that the ZEAT-BEAD project has been funded by the European Union.
- Banners and posters during meetings and workshops contain EU logo and recognize the funding received from the European Union.
- Project official letterhead also contain logo of the European Union.
- 5,000 plastic bags being supported to the Aweil Rice Scheme. Rice bags were printed and indicating support from the EU and ZEAT BEAT Project.
- T-Shirts with UNIDO and the EU logo in front side and a message to promote improved storage practice printed and distributed among project beneficiaries and stakeholders.
- Stickers showing EU as donor of the ZEAT BEAT Project and implemented by UNIDO printed and fixed on the metallic bins which were distributed among the farmers in GBEG region during the post-harvest management training.
- Signposts indicating EU as donor has fixed at all the markets where APCs have been established.
- News article about EU as donor of the ZEAT BEAD Project and activities implemented under the project were published in the South Sudan newspapers to disseminate achievements under the project.

Some articles published in the local newspapers in South Sudan are annexed to this report.

Name of the contact person for the Action:

Stavros Papastavrou

Signature: .....

Location: Vienna, Austria

Date: .....

## Annexure I

### **Training details for Training on Improved Fish Handling and Preservation techniques**

#	Topic	Duration
1	Environmental sanitation and personal hygiene while fish handling <ul style="list-style-type: none"><li>• Safety and hygiene</li><li>• Maintaining processing area</li><li>• Instruction on disposal of solid and liquid wastes</li></ul>	0.5 day
2	Different fish species <ul style="list-style-type: none"><li>• Identify the common fish species</li><li>• Know the name of fish species available in their area</li><li>• Fish grading etc.</li><li>• Difference of fat and lean fish</li><li>• Fish Habitat</li></ul>	0.5 day
3	Fish preservation techniques using <ul style="list-style-type: none"><li>• Sun drying and</li><li>• Wet salted methods</li></ul>	1 day
4	Fish smoking using oil drum oven	1 day
5	Fish smoking using brick oven	1 day
6	Storage and packaging for long duration transport <ul style="list-style-type: none"><li>• Traditional storage structures (advantage and disadvantages)- How to construct small storage facilities</li><li>• Factors influencing storage practices</li><li>• Types of improved storage structures</li><li>• Methods of practicing good store hygiene</li><li>• Fish transportation</li></ul> Knowledge of using available transport means in the area	0.5 day
7	Marketing channels and benefits of collective marketing	0.5 day

**Annexure II****Training details for training on improved slaughtering, flaying, de-fleshing and de-fatting techniques and preservation techniques and marketing****(a) Training on improved slaughtering, flaying, de-fleshing and de-fatting techniques**

#	Topic	Duration
1	Environmental sanitation and personal hygiene (Personal safety and hygiene, Maintaining slaughter house and Disposal of solid and liquid wastes)	1.5 hrs
2	Use of different types of knives and other tools	1.5 hrs
3	Correct method of sharpening of knives	2.0 hrs
4	Appropriate pre-slaughtering techniques like resting and stunning and use of different tools	2.0 hrs
5	Appropriate slaughtering techniques including bleeding and ripping	2.5 hrs
6	Identification of post-mortem defects, appropriate flaying techniques and quality assurance	2.5 hrs
7	Appropriate de-fleshing and de-fatting techniques.	2.5 hrs
8	Cleaning of tools, apron and boots, after slaughtering and skinning operations	2.0 hrs
9	Shorting and grading of fresh hides and skins	1.5 hrs

**(b) Training on improved preservation techniques and marketing**

#	Topic	Duration
1	Environmental sanitation and personal hygiene <ul style="list-style-type: none"> <li>• Personal and workplace safety and hygiene</li> <li>• Disposal of solid and liquid wastes</li> </ul>	1.5 hrs
2	Selection of hides and skins for processing (quality aspects)	1.5 hrs
3	Salting (wet salting, dry salting and brining)	5 hrs
4	Drying and curing (shed drying, sun drying, suspension drying and frame drying)	6 hrs
5	Shorting, grading and tagging of processed and dried hides and skins	2 hrs
6	Marketing channels and benefits of collective marketing	2 hrs

**Annexure III****Training details for Training on Basic Entrepreneurship and Business Management**

#	Topic	Duration
1	Basic entrepreneurship: <ul style="list-style-type: none"> <li>• What is business? Who is an entrepreneur?</li> <li>• Managing own business; Making best use of time;</li> <li>• Practicing business ethics;</li> <li>• Forms of business; Problems encountered by business owners;</li> </ul>	3 hrs
2	Importance of book keeping <ul style="list-style-type: none"> <li>• Understanding importance of book keeping;</li> <li>• Basic book keeping concepts and best practice in book keeping;</li> <li>• Understanding income and expenses;</li> <li>• What is income and expenditure;</li> <li>• Basic calculation and use of symbol and drawings;</li> </ul>	3 hrs
3	How to prepare and maintain accounting records <ul style="list-style-type: none"> <li>• What is cash book and how to write cash book;</li> <li>• Various books to be kept for proper record keeping of any business activities;</li> <li>• Entry system in bookkeeping (single and double entry system);</li> <li>• Importance of daily balancing of cash book and how to do it;</li> <li>• Basic understanding of assets and liabilities;</li> </ul>	3 hrs
4	How to calculate profit and loss <ul style="list-style-type: none"> <li>• Understanding difference between income and profit;</li> <li>• Understanding difference between expenditure and loss;</li> <li>• Calculating income and expenses and profit and loss;</li> </ul>	3 hrs
5	Managing business cash and accounts <ul style="list-style-type: none"> <li>• Advantage and disadvantage of keeping savings in home, bank and saving groups;</li> <li>• Understanding credit management;</li> <li>• Problems in buying and selling on credit;</li> <li>• Importance of keeping records of purchase and sale on credit;</li> <li>• Managing accounts, managing cash and credit/loan;</li> </ul>	3 hrs

6	<p>Financial and marketing management</p> <ul style="list-style-type: none"><li>• Financial controls and system,</li><li>• Credit institutions and sources of finance,</li><li>• Marketing concepts, marketing strategy, doing simple market research, competitors analysis, marketing plan, promotion and advertising;</li></ul>	3 hrs
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## TRAINING DETAILS ON POST-HARVEST MANAGEMENT AND STORAGE OF FOOD GRAIN CROPS

4 | Page

		<p>-Poor drying methods and inadequate storage facilities</p> <p>-Rough transportation/loading/unloading</p>		
	<p>Harvesting</p> <p>(1hr)</p>	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Preparations to make before harvesting</li> <li>• Goals of good harvesting</li> <li>• Process of harvesting in the farmers community</li> <li>• Stage and timing of harvesting</li> <li>• Tools used for harvesting by the community</li> <li>• Losses incurred during harvesting</li> <li>• Precautions to be taken by the farmer during harvesting</li> </ul>	<p>Interactive session where the trainer will ask questions to establish how the farmers carry out the harvesting and</p> <p>Practical demonstration on correct methods of harvesting of specific crop</p>	<p>PH Training Manual</p> <p>Posters</p> <p>Stationery</p> <p>Sickle/Maloda</p> <p>Knife/ Panga</p> <p>Synthetic bags, woven sacks, Traditional baskets, wheel barrows, ox-drawn carts, Tarpaulins, Mats</p> <p>Bicycles</p>
	<p>Drying process</p> <p>(1.5hrs)</p>	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Importance &amp; Reasons for drying grains</li> <li>• How drying is done in the community- Give recommendations on the best drying practices</li> <li>• Recommended moisture content for safe storage; 12-13% for cereals; &lt;10% - Pulses</li> <li>• Determination/testing moisture content in the grain (Using a Moisture testing meter), Salt method, biting method</li> </ul>	<p>Demonstrate the best drying practices (drying under the sun)</p> <p>Demonstrate simple methods of moisture testing e. g salt test, Biting test</p>	<p>Black polythene sheet</p> <p>Transparent polythene sheet</p> <p>Tarpaulins</p> <p>Raised platforms</p> <p>Woven sisal bags</p> <p>Clear glass jar with lid</p> <p>Dry common salt</p> <p>Grain sample</p>
	<p>Threshing /Shelling</p> <p>(1.5hrs)</p>	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Time required for threshing depends on; <ul style="list-style-type: none"> <li>▪ Variety of grain, or nut</li> </ul> </li> </ul>	<p>Establish how the farmers thresh their grain and teach the best</p>	<p>Sacks</p> <p>Tarpaulins</p> <p>Hand held grain thresher</p>

		<ul style="list-style-type: none"> <li>▪ Degree of dryness of grain</li> <li>▪ Method of threshing (Manual vs motorized)</li> <li>• Common traditional threshing practices</li> <li>▪ Beating with sticks on the ground or in sacks</li> <li>▪ Mortar and pestle</li> <li>▪ Grinding on stones</li> <li>• Guidelines for improved threshing efficiency</li> <li>• Losses during threshing               <ul style="list-style-type: none"> <li>-Threshing loss(Incomplete threshing)</li> <li>-Scatter loss(Eaten by domestic animals)</li> <li>-Separation loss(Grain disposed with chaff)</li> </ul> </li> <li>• How farmers can minimize threshing losses</li> </ul>	threshing practices  -Demonstrate threshing using a simple hand-held thresher if available	
	Cleaning/Winnowing  (1hr)	<ul style="list-style-type: none"> <li>• Definition(Removal of chaff and other impurities)</li> <li>• Principal-Lighter materials are blown by air; Heavier foreign materials like stones are handpicked or sieved</li> <li>• Importance of cleaning grains before storage</li> <li>• Methods of cleaning/winnowing (Small and Large scale) e. g wind and drop technique, using a mesh screen/sieve</li> <li>• Losses incurred during winnowing</li> <li>• Minimizing grain losses during cleaning</li> </ul>	Establish how farmers do their winnowing  Give recommendations of the appropriate methods  Farmer groups can also invest on mechanical threshers and winnowers  Questions and Answers session	Tarpaulins or plastic sheets  Sacks/storage bags  Traditional baskets  Screen/wire mesh frame for sieving
2	Quality Assurance	<ul style="list-style-type: none"> <li>• Types of insect pests and examples</li> </ul>	Assist the farmers to visually identify	Pest



	<p>(Max. 2hrs)</p> <p>a) Pest control</p> <p>(40mins)</p>	<ul style="list-style-type: none"> <li>▪ Weevils- Sitophilus species</li> <li>▪ Larger grain borer- Prostephanus truncates</li> <li>▪ Lesser/Smaller grain borer-Rhizopertha dominica</li> <li>▪ Angoumois grain moth- Sitotroga cerealella</li> <li>▪ Bruchids -e.g Bruchid beetles</li> <li>• Losses caused by insect pests</li> <li>▪ Weight loss of the grains</li> <li>▪ Loss in quality/reduced market value&amp; prices</li> <li>▪ Promotion of mould development</li> <li>▪ Reduced germination potential</li> <li>▪ Reduced nutritional value</li> <li>• Sources of infestation</li> <li>▪ Residues at home or farm</li> <li>▪ Structure/store itself i. e cracked walls, old sacks ,thatch or bamboo</li> <li>▪ Old sacks containing the pests</li> <li>▪ Natural habitats e.g. seed pods, rotting wood, bark</li> <li>• Methods of pest control</li> <li>▪ Chemical control</li> <li>▪ Drying attacked grain for 1 hour will kill weevils(Solarization)</li> <li>▪ Sterilizing of food grains</li> <li>▪ Mixture of ash and pepper mixed with grain</li> <li>▪ Neem products</li> <li>▪ Use of tobacco</li> <li>▪ Use of sand(Physical</li> </ul>	<p>storage pests in their grain stores and damage caused by each pest</p> <p>Interactive session, ask the farmers how they control pest in stored grains and share your experiences on better pest control methods</p> <p>Inspect a farmers store and establish the main sources of infestation</p> <p>Demonstrate Solarization procedure in case of re-infested grains</p> <p>Demonstrate how to sterilize old sacks infested by pests(Hot water treatment and dipping in insecticide solution) then hang to dry before storing grain</p> <p>Demonstrate advantages of hermetic</p>	<p>infested/damaged grains</p> <p>Insect pictorial aids for pest identification (colored)</p> <p>PHM Training manual</p> <p>Posters</p> <p>Insect pests specimens</p> <p>Insecticide dust</p> <p>Candles</p>
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		<p>disruption of the pest movement)</p> <ul style="list-style-type: none"> <li>▪ Storage of grains in air tight containers(Hermetic storage, Use of metal drums &amp; PICs bags)</li> <li>▪ Use of metal silos(Traditional and improved)</li> <li>▪ Smoking-wood fire- For Seed grains</li> <li>▪ Storing in a clean place(Store hygiene)</li> </ul>	<p>storage by comparing grain storage in PICs and normal woven sisal bags</p> <p>Demonstrate preparation of grains before storage in silos</p> <p>Assist the farmer in determining how much insecticide to apply</p>	
	<p>b) Control of moulds (Aflatoxins)</p> <p>(30mins)</p>	<ul style="list-style-type: none"> <li>▪ What is Aflatoxin?</li> <li>▪ How can you tell when your grain is contaminated?</li> <li>▪ Why is Aflatoxin dangerous?</li> <li>▪ What can u do to prevent Aflatoxin contamination?</li> </ul>	<p>-Questions and answers session</p> <p>-Identification of aflatoxin infested grain either in the field or in store</p>	<p>PHM Training Manual</p> <p>Pictorial aids to help farmers identify grains infested with Aflatoxins</p>
	<p>c) Termites Control</p> <p>(30mins)</p>	<ul style="list-style-type: none"> <li>▪ Timely harvesting</li> <li>▪ Application of used oil/diesel around the store</li> <li>▪ Removal of bark from post supporting granary</li> <li>▪ Physical removal of the termites</li> <li>▪ Spreading of ash at base of granary</li> <li>▪ Mixture of cow urine with salt applied at the base of the granary</li> <li>▪ Application of synthetic chemicals</li> </ul>	Demonstration	Used engine oil Termiticides
	<p>d) Rodent control</p> <p>(40mins)</p>	<ul style="list-style-type: none"> <li>• Types of rodents</li> <li>• Signs of presence of rats in the store</li> <li>• Losses/Damage caused by</li> </ul>	Demonstration by group visit to the store to check for presence or	PHM Training Manual

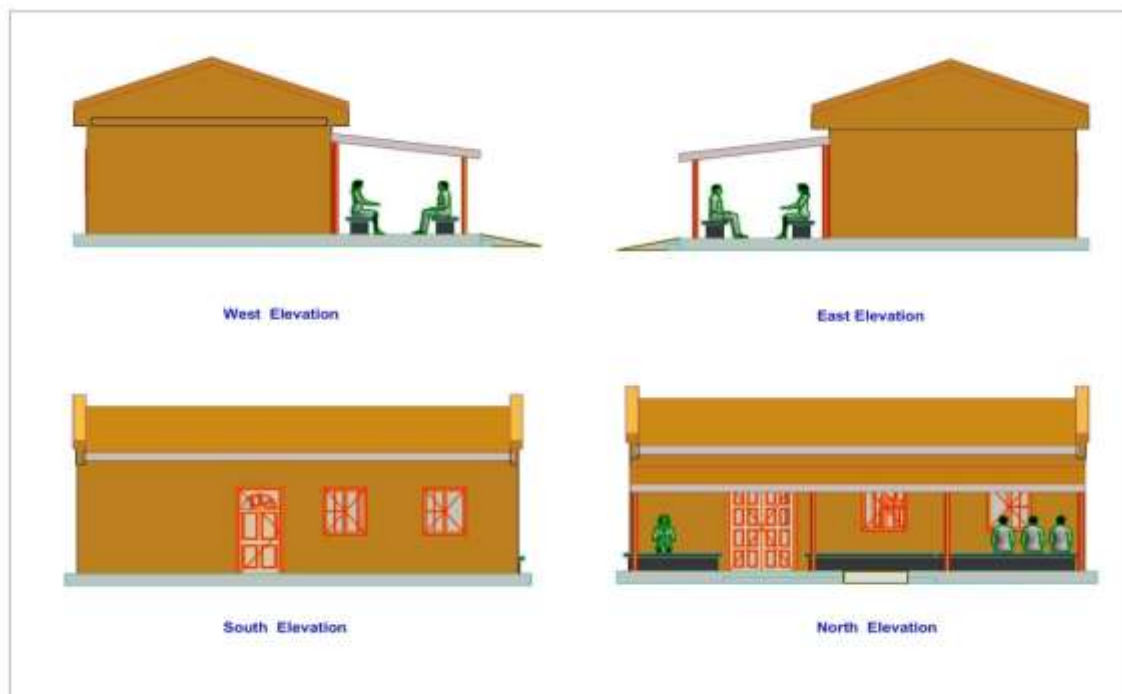
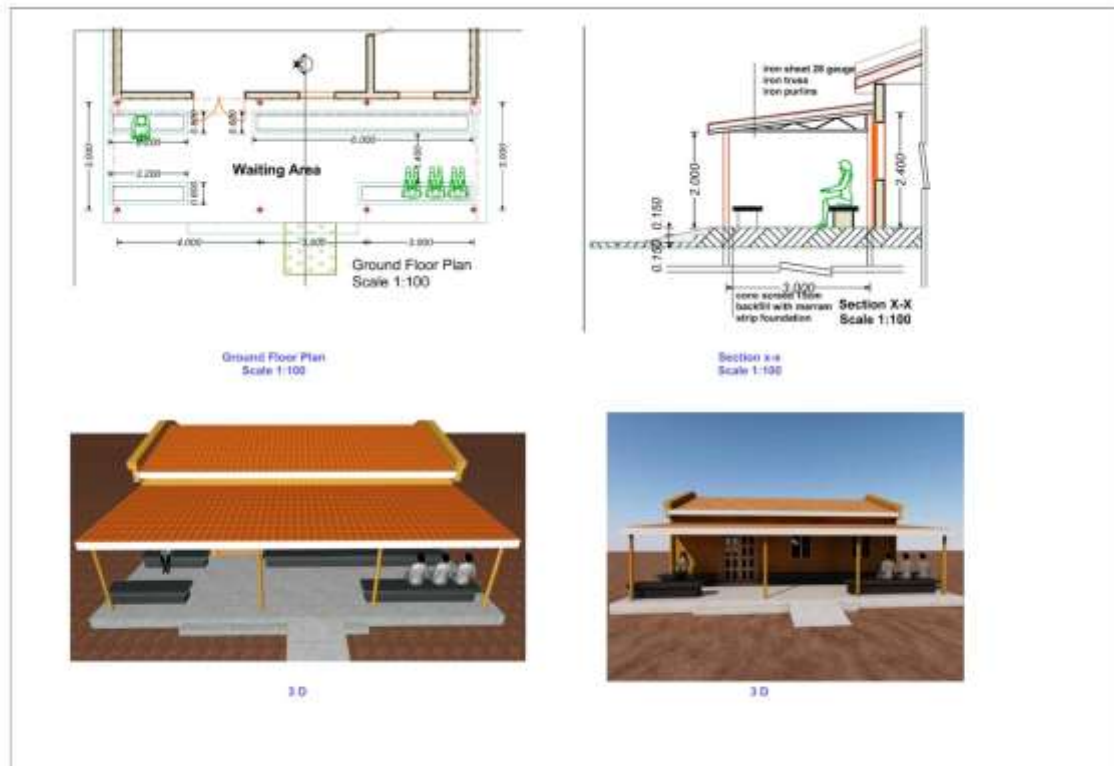
		rodents <ul style="list-style-type: none"> <li>Control methods             <ul style="list-style-type: none"> <li>Rat guards</li> <li>Rodenticides</li> <li>Physical traps/Baits</li> <li>Biological control (domestic cat)</li> <li>Clean compound</li> </ul> </li> </ul>	signs of rodents in the store Notes taking	
	e) Control of Birds (30mins)	<ul style="list-style-type: none"> <li><i>Quelea quelea</i>, Weaver bird</li> <li>Losses caused by birds             <ul style="list-style-type: none"> <li>Feeding</li> <li>contamination</li> </ul> </li> <li>Control measures (Scare crows), keeping guard, Use of any other material producing movements e.g. strings</li> </ul>	Group discussions Interactive sessions Questions and answer sessions	Note books
	f) Grain Storage (2hrs)	<ul style="list-style-type: none"> <li>Definition</li> <li>Practicing good storage hygiene</li> <li>Methods/storage structures, their advantages and disadvantages             <ul style="list-style-type: none"> <li>PICs Bags(Hermetic bags)</li> <li>Metal silos/Bins</li> <li>Metal Drums and plastic containers</li> <li>Common woven sacks or synthetic sacks</li> </ul> </li> <li>Proper Packaging /Palleting or stacking during storage(Not more than 10 bags high), Leaving plenum between bags and wall, Grain should not be in contact with the floor</li> <li>Losses caused by poor storage e. g moulds,</li> </ul>	Ask the farmers how the store their grains and share the modern/improved methods of grain storage e. g PICs bags, GI Sheets silos, Metal bins  Ask farmers to pick a sample of stored grain and bring close to the nose! (Sound grain should not be mouldy, rotten or discolored.) Demonstrate the difference between the normal sack and PICs Bags	PICs Bags Nylon Sacks GI silos Metal bins  -Pictorial aids to identify other methods of storage  Interactive session

		spillage etc.		
	<p>Contract farming and Collective marketing (Group marketing)</p> <p>(1 hr)</p>	<ul style="list-style-type: none"> <li>• Definition of terms</li> <li>• Advantages of CF to the farmers</li> <li>• Advantages of CF to the buyers</li> <li>• Challenges of CF to both the farmers and buyers</li> <li>• FAOs CF guiding principals               <ul style="list-style-type: none"> <li>▪ Common purpose-Win-win situation</li> <li>▪ Open dialogue</li> <li>▪ Readability of contracts</li> <li>▪ Clear documentation</li> <li>▪ Transparency in price determination</li> <li>▪ Clear mechanisms to settle disputes</li> <li>▪ Transparency</li> </ul> </li> <li>• Advantages of collective marketing               <ul style="list-style-type: none"> <li>▪ Farmers attain economies of scale</li> <li>▪ Improvement in post harvesting Handling and storage through acquiring central</li> </ul> </li> </ul>	<p>Interactive session between the trainer and the farmers</p> <p>Questions and answers session</p> <p>Visit to a bulk grain store/Warehouse</p>	<p>Note books and pens</p> <p>Sitting space</p>

		<p>storage facilities e. g silos</p> <ul style="list-style-type: none"><li>▪ Bulking of products hence attracting large scale buyers</li><li>▪ Better access to market information</li><li>▪ Bulky purchase and transportation of inputs reducing cost of production</li><li>▪ Better bargaining power for better prices</li></ul> <ul style="list-style-type: none"><li>• Starting and sustaining group marketing</li><li>• Challenges in marketing of cereals and pulses<ul style="list-style-type: none"><li>▪ Post-harvest losses</li><li>▪ Inadequate Storage facilities</li><li>▪ Bulking</li><li>▪ Infrastructure</li><li>▪ Draught in marginal areas</li><li>▪ Quality standards</li></ul></li></ul>		
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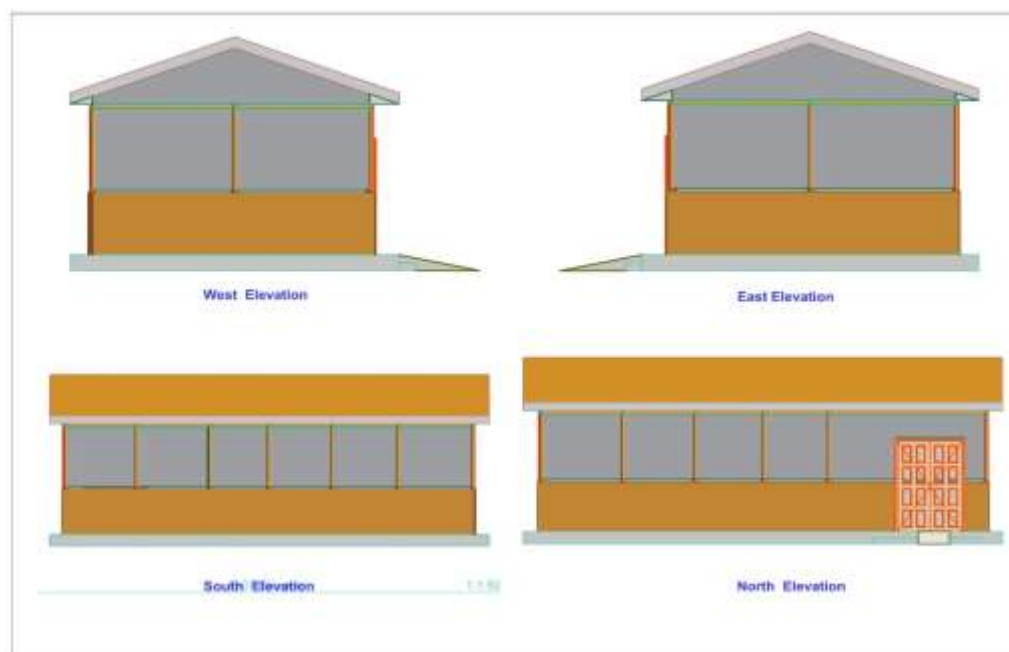
## Annexure V

### Drawing and design of the APC verandah



## Annexure VI

### Drawing and design of the Hide and Skin Stores



**Annexure VII****Management Board of Agro – processing Centres and Aweil Rice Scheme****Aduel Agro – processing Centre**

<b>No.</b>	<b>Name</b>	<b>Position</b>	<b>Institution</b>	<b>Remarks</b>
1.	Samuel Mabor Nyiduer	Ex. Director	Eastern Bahr El Naam County	Chairman
2.	Daniel Thon Makuei	Director of Agriculture;	State Ministry of Agriculture	Co-Chairman
3.	Daniel Ruben Ateng	Project Coordinator	UNIDO	Secretary
4.	Joseph Makoi Gol	Director of Agriculture	Eastern Bahr El Naam County	Member
5.	Chol Dut Meen	Chamber of Commerce	Chairperson	Member
6.	John Sebit Manyang	Flid assistant	UNIDO	Member

**Ayien Agro – processing Centre**

<b>No.</b>	<b>Name</b>	<b>Position</b>	<b>Institution</b>	<b>Remarks</b>
1.	Joseph Yac	Payam Administrator	Ayien Payam	Chairman
2.	Jackson Yaach	Ag. Director of department of Agriculture;	department of Agriculture	Co-Chairman
3.	Daniel Ruben Ateng	Project Coordinator	UNIDO	Secretary
4.	Deng Makuch	Paramount Chief	Ayien Payam	Member
5.	Yai Chol	Head of Security	County Security	Member
6.	Angong Deng Tor	Women representative	Women Group/Union	Member
7.	Bol Makuch Bol	Youth representative	Youth Group/Union	Member



**Aweil Rice Scheme Rice Mill**

No.	Name	Position	Institution	Remarks
1.	Gabriel Mali	Mill Manager	Aweil Rice Scheme	Chairman
2.	John Leon	Amin & Finance	State Ministry of Agriculture	Member
3.	Daniel Ruben Ateng	Project Coordinator	UNIDO	Secretary
4.	Wol Amuk	Chair person	Chamber of commerce, Trade, Industry and Agriculture	Member
5.	Dut Mou Majak	Chair Person	Aweil Rice Scheme farmers cooperation	Member
6.	Martin Ahel Garam	Accountant	Aweil Rice Scheme	Member

**Gok-Machar Agro Processing Centre**

No.	Name	Position	Institution	Remarks
1.	Gabriel Wek Jongkor	Ag. Director of Agriculture;	County Department of Agriculture	Chairman
2.	Kout Anynor Ayii	Executive Director	County HQs	Co-Chairman
3.	Daniel Ruben Ateng	Project Coordinator	UNIDO	Secretary
4.	Deng Deng Anei	Chairman Chamber of Commerce	County Chamber of Commerce	Member
5.	Bak Bak	Head of Security	County Security	Member
6.	Adou Dut Diing	Women representative	Women Group/Union	Member
7.	Dut Akok Anei	Youth representative	Youth Group/Union	Member
8.	Tito Garang Lual	Deputy Director	Relief and Rehabilitation Commission	Member

**Kangi Agro Processing Centre**

<b>No.</b>	<b>Name</b>	<b>Position</b>	<b>Institution</b>	<b>Remarks</b>
1.	Gatano Guido A.	Director of Agriculture;	County Department of Agriculture	Chairman
2.	Arkangelo Ucuir Lual	Executive Director	County HQs	Co-Chairman
3.	Daniel Ruben Ateng	Project Coordinator	UNIDO	Secretary
4.	Undero Uyu Chol	Chairman Chamber of Commerce	County Chamber of Commerce	Member
5.	Arkengleo Deng Akot	Paramount Chief	Local Authority	Member
6.	Rodulf Unguec	Community Leader	Local Authority	Member

**Annexure VIII****MEMORANDUM OF UNDERSTANDING FOR THE OPERATION AND MANAGEMENT OF THE AGRO PROCESSING AND TRAINING CENTRE LOCATED IN KANGI, WAU STATE**

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This Memorandum of Understanding (the “MOU”) is effective this \_\_\_\_day of\_\_\_\_, 2017,

**AMONG:** **THE STATE MINISTRY OF AGRICULTURE, ANIMAL RESOURCES AND FISHERIES OF WAU STATE** (hereinafter referred to as “the Ministry”), duly represented by **[Insert the name of the representative of the Ministry]**

**AND:** **THE KANGI COUNTY** (hereinafter referred to as “the County”) **duly represented by [Insert the name of the representative of the County]**

**AND:** **UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION (UNIDO) ZEAT-BEAD PROJECT** represented by **Mr. Daniel Ruben Ateng, Project Coordinator**

**BACKGROUND:**

The European Union (EU) has funded a comprehensive rural development programme entitled “Improved Food Security and Income for Rural Smallholders” in the Greater Bahr El Ghazal Region of South Sudan to improved food security and income for the rural smallholders in the target areas. The specific objectives of the UNIDO action under the Zonal Effort for Agricultural Transformation-Bahr El Ghazal Effort for Agricultural transformation (ZEAT-BEAD) Programme are ‘*Upgrading value chain strategies developed and implemented and actors capacitated and operating in value chain and practicing scaling up technological and entrepreneurial features*’. Through this action UNIDO is focusing specifically on small household producers and small private business owners to create a sustainable and simple marketing network by developing and implementing upgrading value chain strategies. In addition, project is focusing to build capacity of the different actors to operate in the value chain and tune to technological and business features for more value addition of their production asset. To improve mechanization and value addition of the identified commodities in the target areas project is planning to introduce appropriate technologies for harvesting, threshing and milling of rice, sorghum and groundnut crops.

In order to promote local value addition and processing activities at the identified trading centres, UNIDO has constructed agro processing and training centres at Kangi trading centres in Jur River County of Wau State. UNIDO is equipping the agro processing centre with basic equipment and machinery for value addition of sorghum. It is expected that the centre will be primarily used for value addition and processing of selected commodities being produced in the area. However, it can also be used for training of other producer groups on post-harvest management and other income generating activities.

**THIS AGREEMENT WITNESSES AS FOLLOWS:**

**ARTICLE 1- PURPOSE OF THE MOU**

- (1) The purpose of this MOU is to document the collaborative efforts by the three parties (the Ministry, the County and UNIDO) towards the sustainable use of the facility and operation and management of the Kangi agro processing and training centre.
- (2) The operation of the Kangi agro processing and training centre is realized through a Public Private Partnership (PPP) mode.

**ARTICLE 2- MUTUAL RESPONSIBILITIES**

The Ministry, the County and UNIDO understand that:

- (1) They will jointly form a Management Board (MB);
- (2) The details of this MOU shall be jointly planned and executed by all parties; and
- (3) This MOU is not a funds obligation document. Any endeavor involving reimbursement or contribution of funds between the parties to the agro processing and training centre will be outlined in separate agreements that shall be made in writing by representatives of the parties.

**ARTICLE 3-RESPONSIBILITIES OF THE MINISTRY**

The Ministry will:

- (1) Develop appropriate policy and guidelines for promotion of sorghum and other staple crops in the Jur River County;
- (2) Collect data and statistics on production and productivity of different crops grown in the county on a regular basis;
- (3) Enhance the cooperation among stakeholders.

**ARTICLE 4- RESPONSIBILITIES OF THE COUNTY**

The County will:

- Provide security for the agro processing and training centre facilities and workers;
- Monitor the availability of water in the agro processing and training centre;
- Promote hygiene and sanitation in and around the agro processing and training centre;
- Raise awareness on importance of hygienic and sanitation among public;
- Enter into a contract with a private operator selected for operation and management of the agro processing and training centre;
- Be responsible for technical supervision of the private operator;
- Ensure that the facility and equipment are kept and used according to agreed standards; and

- Monitor and evaluate the agro processing and training centre activities according to the contract with the private operator and report to the Board.

## **ARTICLE 5- RESPONSIBILITIES OF UNIDO ZEAT-BEAD PROJECT**

UNIDO ZEAT-BEAD will:

- (1) Arrange construction of the agro processing and training centre building together with a toilet block and fencing of the centre;
- (2) Provide a set of tools and equipment for processing of sorghum;
- (3) Provide a set of office equipment for the agro processing and training centre;
- (4) Identify training needs of the various actors;
- (5) Provide training according to the needs;
- (6) Support the development of a business plan for the agro processing and training centre; and
- (7) Assist the owner of the agro processing and training centre to draft the contract with a private operator according to PPP principles.

## **ARTICLE 6- FORMATION OF THE MANAGEMENT BOARD**

- (1) There shall be a Management Board (MB), comprising of six (06) members appointed by the parties to this MoU as follows:
  - (a) 2 representatives from the Ministry,
  - (b) 2 representatives from the County
  - (c) 1 representatives from the Chamber of Commerce and
  - (d) 1 representative from the UNIDO.
- (2) Members of the Management Board shall elect a chairperson, deputy chairperson and secretary from among themselves.

## **ARTICLE 7- REMUNERATION**

- (1) Members of the Management Board shall not be entitled to remuneration.
- (2) Each party to this MOU shall meet the expenses of allowances for Board meetings.

## **ARTICLE 8- RESPONSIBILITIES OF THE BOARD OF TRUSTEES**

The Management Board shall:

- (1) Develop policies and directives for the operation of the agro processing and training centre;
- (2) Select a private operator;
- (3) Develop the contents of the agreement between the owner and the private operator;
- (4) Recommend legal steps against the private operator in case of breach of contract;
- (5) Oversee the implementation of the contract agreement with the private operator;

- (6) Determine a fee and rent structure for the agro processing and training centre operations;
- (7) Ensure that funds are set aside for future investments; and
- (8) Approve Terms of Use of the agro processing and training centre by the private op.

#### **ARTICLE 9- FUTURE INVESTMENTS**

- (1) The management board shall be the treasurer of funds put aside for necessary future investments for infrastructural development and major maintenance of the equipment.
- (2) A separate bank account shall be opened by the owner for the purpose of keeping the funds mentioned in Sub-Article (1) above.
- (3) Signatories to the bank account opened in Sub-Article (2) above shall be the Ministry and the County.
- (4) Decisions on how and where to use the funds shall be made unanimously by the members of the management board.

#### **ARTICLE 10- OPERATIONAL PROCEDURES OF THE MANAGEMENT BOARD**

- (1) Members of the management board shall regulate their meetings as they think necessary.
- (2) Decisions of the management board shall be made collectively and unanimously.
- (3) The quorum necessary for the transaction of the business of the management board shall be a minimum of 4, with representation from all the three parties to this MOU.
- (4) The parties to this MOU may appoint alternates to the board meetings in the event of absence of the members appointed.
- (5) Any resolution in writing, signed by all the members of the management board for the time being entitled to receive notice of meetings, is valid and effectual as if it had been passed at a meeting of the management board duly convened and held.
- (6) A member of the management board shall not vote in respect of any transaction in which he or she is interested, and if he or she does so, his or her vote shall not be counted, nor shall he or she be counted in the quorum present at the meeting in respect to considering such contract of arrangement.
- (7) The management board shall formulate further rules and regulations governing their activities when the need arises.

#### **ARTICLE 11- AMENDMENT**

This MOU may be amended at any time by mutual agreement of the parties in writing.

#### **ARTICLE 12- EFFECTIVE DATE AND DURATION**

- (1) This MOU shall become effective upon the date of final signature and shall continue until 31st December 2017.
- (2) The parties to this MOU may mutually agree in writing to terminate it before the end date.
- (3) In the event of force majeure, the affected party shall immediately notify the other parties to the MOU about the existence of such a condition and have the MOU terminated.

(4) The parties to this MOU may agree to renew it annually if they so deem fit.

**IN WITNESS WHEREOF** the authorized representatives of the parties to this MOU have signed it in 3 copies on the date and the year mentioned above.

Signed:

**[Name of the Representative of the Ministry]** \_\_\_\_\_

For and on behalf of

**THE STATE MINISTRY OF AGRICULTURE, ANIMAL  
RESOURCES AND FISHERIES OF WAU STATE**

**Title:** .....

Witness:

**[Name of the witness]** \_\_\_\_\_

**Title:** .....

**[Name of the Representative of  
the County]** \_\_\_\_\_

For and on behalf

***THE JUR RIVER COUNTY OF***

**Title:** .....

Witness:

**[Name of the witness]** \_\_\_\_\_

**Title:** .....

**Daniel Ruben Ateng** \_\_\_\_\_

For and on behalf

**UNITED NATIONS INDUSTRIAL DEVELOPMENT  
ORGANIZATION (UNIDO) ZEAT-BEAD PROJECT**

**Title: Project Coordinator**

Witness:

**[Insert Name of the witness]** \_\_\_\_\_

**Title:** .....



## Annexure IX

## Publications in News daily



Thursday Sept 28, 2017

News

JUBA MONITOR

3

# UNIDO, EU Supporting Development of Leather Sector in GBEG Region



## Press Release

The United Nations Industrial Development Organization (UNIDO) is implementing a project funded by the European Union in the

Greater Bahr El Ghazal Region of South Sudan. The overall objective of the project on "Enhanced local value addition and strengthening value chains" is to contribute to the improvement of food security and

income of the target beneficiaries in the GBEG region by promoting local value addition and market development. Leather (Hide and Skin) is one of the five value chain UNIDO is supporting in the target areas.

The UNIDO Chief Technical Advisor Mr. Ram Kishore Singh informed that recently 80 butchers and flyers from Wau, Aweil, Kwajok and Rumbek were trained on improved slaughtering, flaying, de-fleshing and de-fatting techniques for three days at their respective locations. In addition, 24 skin processors were trained on improved processing and preservation techniques like salting, drying, shorting, grading and tagging. Participants through the Ministry of Animal Resources of different states were supported with set of tools and implement like improved knives, apron, knife

sharpening machine, weighing scale, wheel barrow, etc. after completion of the training.

Project Coordinator Mr. Daniel Ruben Ateng explained further that special sessions were conducted on marketing aspects where it was agreed that UNIDO will support developing of a network or association of processors and traders in the GBEG region so that they can do marketing collectively to gain better value of the hides and skins. UNIDO is also constructing four stores in the GBEG region for facilitating storage of processed hides and skin. Participants and local government commended UNIDO for implementing such training programme because at present local butchers do not value hide and skin much and sometimes just throw away without processing.

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Friday September, 29, 2017

Vol. 2  
Issue 171

National

This DAY

# UNIDO and EU Supporting Development of Leather Sector in Bahr El Ghazal Region

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market development. Leather (Hide and Skin) is one of the five value chain UNIDO is supporting in the target areas. The UNIDO Chief Technical Advisor Mr. Ram Kishore Singh informed that recently 80 butchers and flyers from Wau, Aweil, Kwajok and Rumbek were trained on improved slaughtering, flaying, de-fleshing and de-fatting techniques for three days at respective locations. In addition, 24 skin processors were trained on improved processing and preservation techniques like salting, drying, shorting, grading and tag-

ging. Participants through the Ministry of Animal Resources of different states were supported with set of tools and implement like improved knives, apron, knife sharpening machine, weighing scale, wheel barrow, etc. after completion of the training. Project Coordinator Mr. Daniel Ruben Ateng explained further that special sessions were conducted on marketing aspects where it was agreed that UNIDO will support developing of a network or association of processors and traders in

the GBEG region so that they can do marketing collectively to gain better value of the hides and skins. UNIDO is also constructing four stores in the GBEG region for facilitating storage of processed hides and skin. Participants and local government commended UNIDO for implementing such training programme because at present local butchers do not value hide and skin much and sometimes just throw away without processing.