

Shelter Strategy for Ajoung Thok Refugee Camp Revised for 2015 Implementation

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1 Background

1.1 Overview

Unity State is home to over 87,000 Sudanese refugees, the large majority of whom are in Yida, a spontaneous settlement close to the Jau border point in Northern Unity State. There have been ongoing concerns regarding the suitability of Yida as a refugee camp. Yida is located at the end of a 20 km corridor from the contested border point of Jau, where there is heavy build-up of military troops, including both SPLA South and, on the other side of the border, SPLA-North, an armed group opposed to the Khartoum regime. As a result, Jau has proved to be a military target for Sudanese forces, and has come under aerial bombardment in the recent past. Furthermore, Yida being located on a border corridor has made it a thoroughfare for military troops, thus compromising the civilian character of the camp. The mixed character of the camp had posed serious protection concern for UNHCR, on top of the fact that the continuously growing population is stretching essential services to breaking point. At the same time UNHCR with the local authorities in Unity State as a first step to provide an alternative site for refugees from South Kordofan, in March 2013, identified Ajoung Thok (a forested site with underground water reserves and with red and grey sandy soil, suitable for agriculture and grazing) as suitable alternative site to accommodate new arrivals and those who voluntarily choose to relocate from Yida.

Ajoung Thok site has given UNHCR an opportunity to set up a camp properly from the start, something that was not possible in Yida camp, due to the spontaneous nature of the site development. The Government directive, at the time was for Ajoung Thok to hold approximately 20,000 refugees, with priority given to new arrivals from Sudan's Southern Kordofan State across the border. The first relocation exercise from Yida camp to Ajoung Thok took place in April 2013.

It was clear from the onset that more sites were needed to cope with relocations of the large population in Yida, and for that reason UNHCR with local authorities further embarked on a long search that included inspection of 13 sites in the region looking for other suitable sites in which refugees could be settled. Out of all the sites only Pamir and Gumriak were found suitable for use as refugee settlement and out of the two Pamir was preferred because it is in an area that is far removed from Yida closer to Ajoung Thok while Gumriak being just a few kilometers from Yida could easily become an extension of Yida having all the problem attributed to Yida especially the comprise of civilian character.

The crisis in South Sudan since December, 2013, has adversely affected the provision of basic services to the refugees in Yida and Ajoung Thok. There is no infrastructure or state services

available to the impoverished local communities, and all essential services are entirely dependent on humanitarian assistance. The crisis hampered the use of roads for humanitarian pipeline for the entire dry season of 2014 which has continued till date. The dry season is usually the only window for prepositioning humanitarian supplies for tens of thousands of refugees as most roads become impassable during the rainy season. UNHCR and partners are currently airlifting lifesaving supplies including plastic sheets and materials for shelter construction materials thereby causing the cost of shelter to move to sky-rocketing proportions.

Another site has been identified in Pamir about 15 kilometers from Ajoung Thok for construction of another camp as Ajoung Thok gradually reaches the planned population of 20,000 persons but due to challenging security situation the authorities have not yet permitted the development of Pamir as a refugee camp. As a result the option being followed now is to expand Ajoung Thok so it can take more refugees while approval for development of another site is being pursued with the authorities.

As the refugee population of in Ajoung Thok refugee camp which now has exceeded 18,000 persons, continued to increase, provision of shelter was made an integral part of the settlement package. Each household relocated to Ajoung Thok camp received upon arrival on site an emergency shelter kit which includes:

- UNHCR plastic sheets
- Local timber poles
- Jamaican ropes
- Bush sticks
- Locally-made door
- Tools

Each emergency shelter kit cost roughly 300 USD /kit.

The need to upgrade these shelters to a more durable and sustainable solution gave rise to the development of the shelter strategy for Ajoung Thok which is hereby revised.

Within the past year since implementation of the semi-permanent shelter strategy began there have been many challenges as follows:

1. The local authorities are becoming more sensitive to the utilization of local materials such as natural wooden poles for emergency shelters
2. Delayed supply of materials from Juba has remained a challenge throughout the implementation period
3. Change in weather from the dry season to the rainy season hence difficult in drying bricks
4. Difficulties in having enough water for brickmaking
5. Lack of means to transport red soil for the shelter brickmaking
6. Lack of enough plastic sheets for emergency shelter
7. Lack of enough funds to implement shelter support activities

This paper is a revision of the shelter strategy for Ajoung Thok to guide 2015 shelter implementation keeping same spirit as the earlier document¹.

This revision like the original paper remains intended to act as a shelter strategy framework that outlines the framework for action, taking into account the variable elements of population, actors and budget to be updated regularly as circumstances demand.

Regular evaluation and monitoring will determine amendments to this strategy, to be undertaken through UNHCR Site Planner

2 Objectives

2.1 Overall Objective

To ensure the physical protection, safety and dignity of refugees by providing a more sustainable, durable and cost effective shelter type, as an upgrade on the initial emergency shelter type, ensuring that they live in safety and with dignity and protected from physical elements. This strategy takes into account the capacity of the refugees ensuring that the vulnerable are fully assisted within their community and reinforcing their safety and security, while at the same time ensuring environmental sustainability.

2.2 Specific Objectives

- To ensure that refugees are protected from hazardous weather conditions
- To establish the appropriate shelter standard for all refugees in the camp as well as new arrivals
- To ensure that capacity of refugees to maintain the shelter type is enhanced.
- To ensure that materials used in the construction process and construction method have little or no negative environmental impact.

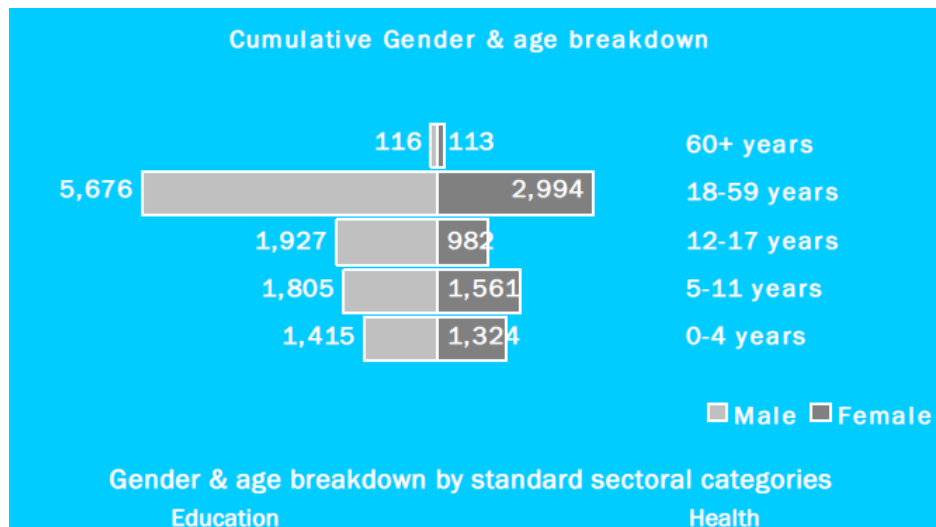
This document excludes any recommendation for communal structures. (Transit booths, Hangers etc)

2.3 Target Beneficiaries

The present registered population of Ajoung Thok camp, including new arrivals as at 24 Jan 2015.²

¹ This revision is the second. The original version was by Ernest Ariyo Cummings (UNHCR Physical Site Planner) and the first revision was by Gabriel Masika (DRC Shelter Officer)

² Data from UNHCR statistical report of 24 Jan 2015



2.4 Guiding Principles for Implementation

- This project has been developed and being implemented in direct consultation with the refugees, Government coordinating authority, host community, partners and other relevant stakeholders ensuring equitable and transparent participatory engagement.
- The project will continue to ensure that materials procurement minimizes the environmental impact.
- The shelter project will continue to maximize the economic potential for refugee and host community.
- The shelter response will continue to provide similar level of aid to all affected populations, ensuring equitable shelter for refugees as seen in the host community.
- The consultations will ensure equitable and transparent participatory engagement with refugees and host community.
- This project will continue to provide durable solution to long-term displacement and build the capacities of the refugees and ensure the beneficiaries' ability to undertake maintenance and repair of the structure.
- The shelter provision will target the most vulnerable refugees and ensure their timely protection.

2.5 Stakeholders and their roles

- Project coordination will be undertaken by UNHCR through Ajourng Thok Camp coordination team and Shelter Coordination and Shelter Working Group.
- The current camp manager agency (DRC) will continue to be UNHCR shelter implementing partner.
- Implementing partners dealing with water and sanitation (IRC) will be part of the site planning team and Shelter Coordination and Shelter Working Group.
- As custodian of the land, Host Community representatives will participate in the consultative meetings.
- Individual houses will be built on refugee's plot. In the case of construction of shelters for the EVIs, DRC camp management and community services will be responsible for these.

3. Implementation Methodology

3.1 Needs Assessment

The beneficiaries will be provided with a shelter kit, construction tools, guidance for construction, and assistance for vulnerable families. Variations on the shelter construction and layout may be determined by the refugee, with structural guidance if required.

The construction method is based on the local structures and the shelters that refugees are building for themselves in Unity state.

A construction plan of the shelter and BOQ was produced and the DRAFT shared FOR CONSULTATION WITH PARTNERS, STAKEHOLDERS is attached to this strategy. It is expected that there will be subsequent revisions; following consultations and that the individual preference of refugee may influence some modifications in the camps.

Participation assessment results show a tremendous motivation from beneficiaries to participate to the improvement of their living condition.

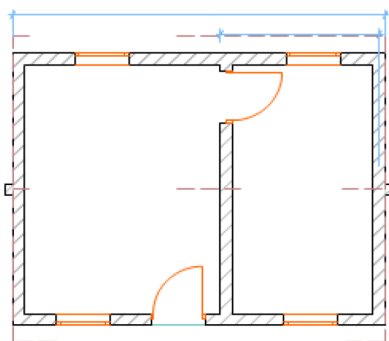
Meanwhile discussions during the participation assessment also brought out details on the walling materials specifications (ie mud daubed or mud bricks walls) required per shelter, which resulted in a consensus about the methods to be implemented.



Semi-Permanent Shelter under Construction in Ajong Thok Refugee Camp



Complete Shelter Unit in Ajong Thok Refugee Camp



Plan view of 5m by 3m Shelter



3-D View of 5m by 3m Shelter

The design description is as contained below:³

Element	Prototype 1(Mud brick wall)	Prototype 2(Wattle and daub)
Foundation	Two courses of a Fleming jointed sun dried mud bricks 160x320x100mm underlain in mud slurry ³	200mm diameter holes dug 600mm deep into the ground to anchor Timber poles
Walling	2.3 high masonry walling from prefabricated sun dried mud bricks of size 160x320x120mm. The bricks are jointed together with mud slurry. The wall is reinforced with a pillar at the gable section made from the same bricks	The wall is 2.4m high wall with 18 pcs of timber anchored into the ground. On the sides of the wall, bamboo splits are fixed with nails at intervals of 200mm from each other. The mud is dubbed fresh after mixing into the spaces between the bamboo
Roof	The roof consist of five (4) no trusses fabricated from treated sawn 100x 50mm timber. The purlins are fixed from 50x50mm timber nailed on the trusses and covered with Galvanized Corrugated Iron (GCI)sheets The roof is anchored to the wall with a 100x50mm timber tied to the walling using hoop iron at intervals of 1000mm c/c along the front and back walls	The roof consist of five (5) no trusses fabricated from treated sawn 100x 50mm timber. The purlins are fixed from 50x50mm timber nailed on the trusses and covered with Galvanized Corrugated Iron (GCI)sheets The roof is anchored to the wall with a 100x50mm timber tied to the walling using hoop iron at intervals of 1000mm c/c along the front and back walls
Finishing	The wall will be smeared/plastered using hand with a light mixture of water and soil. Ash (if available) can also be mixed in the plastering slurry The inside of the house(floor) shall be well leveled and plastered with mud and cow dung (if available)	The wall will be smeared/plastered using hand with a light mixture of water and soil. Ash (if available) can also be mixed in the plastering slurry The inside of the house(floor) shall be well leveled and plastered with mud and cow dung (if available)
Drainage	The compound shall be kept clean and well drained .The house shall be well drained around the wall to avoid pools of water during the rainy season	The compound shall be kept clean and well drained .The house shall be well drained around the wall to avoid pools of water during the rainy season
Visibility	A standard size plate/sticker of 400x300mm will be attached to all the shelters constructed. The sticker/plate shall contain the address (block, community, plot numbers) and the logos of UNHCR and DRC.	A standard size plate/sticker of 400x300mm will be attached to all the shelters constructed. The sticker/plate shall contain the address (block, community, plot numbers) and the logos of UNHCR and DRC.

³ Data from DRC (UNHCR Implementing Partner for Shelter)

Materials Quantities and Cost for Mud Brick Wall Prototype:⁴

	Description	Unit	Quantity	Rate(SSP)	Amount(SSP)
1	<i>Walling</i>				
a	Water	LTRS	4,000		
b	Block production(Including soil harvesting and making blocks)	PC	2,000		
c	Transportation of blocks	PC	2,000		
2	<i>Roof</i>				
a	4"x 2" Timber for wall plate, trusses, purlins	LM	100	6	600
b	2" x2" Timber for purlins	LM	45	5	225
c	4" Nails	KG	4	10	40
d	Roofing Nails	KG	3	10	30
e	Galvanized Corrugated Iron(GCI) sheets , 3000mm long	PC	16	50	800
f	Ridge caps	PC	4	15	60
g	Hoop iron	LM	15	5	75
3	<i>Fittings(Doors and Windows)</i>				
a	1mm thick plain Galvanized iron sheet(1000m x 2100mm)	PC	2.5	30	75
b	4" x2" Timber	LM	60	6	360
c	4" Nails	KG	1	10	10
d	1" Nails	KG	1	10	10
e	6" Tower bolt	PC	1	15	15
f	4" Pad bolt	PC	4	10	40
g	4" Hinges	PAIR	2	15	30
h	2" Hinges	PAIR	8	10	80
i	Wood screws size no. 7	PCS	50	2	100
4	<i>Others</i>				
a	Timber Wood preservative	LTRS	20	5	100
b	Claw Hammer, saw, plumb bob community	SET	1	50	50
	TOTAL				2,700

⁴ Data from DRC (UNHCR Implementing Partner for Shelter)

Materials Quantities and Cost for Wattle and Daub Wall Prototype:⁵

	Description	Unit	Quantity	Rate(SSP)	Amount(SSP)
1	Walling				
a	3,000mm long ,100mm diameter timber poles(locally sourced)	PC	14	5	70
b	Bamboo	PC	180	0.2	36
c	2" Nails	KG	5	10	50
d	Soil(harvesting and Transportation)	TON	40		
e	Water	LTRS	4000		
2	Roof				
a	4"x 2" Timber for wall plate, trusses, purlins	LM	100	6	600
b	2" x2" Timber for purlins	LM	45	5	225
c	4" Nails	KG	4	10	40
d	Roofing Nails	KG	3	10	30
e	Galvanized Corrugated Iron(GCI) sheets , 3000mm long	PC	20	50	1000
f	Ridge caps	PC	5	15	75
g	Hoop iron	LM	15	5	75
3	Fittings(Doors and Windows)				
a	1mm thick plain Galvanized iron sheet(1000m x 2100mm)	PC	2.5	30	75
b	4" x2" Timber	LM	60	6	360
c	4" Nails	KG	1	10	10
d	1" Nails	KG	1	10	10
e	6" Tower bolt	PC	1	15	15
f	4" Pad bolt	PC	4	10	40
g	4" Hinges	PAIR	2	15	30
h	2" Hinges	PAIR	8	10	80
i	Wood screws size no. 7	PCS	50	2	100
4	Others				
a	Timber Wood preservative	LTRS	20	5	100
b	Diggers, Claw Hammer, saw, splitters for one community	SET	1	50	50
	TOTAL				3,071

⁵ Data from DRC (UNHCR Implementing Partner for Shelter)

3.2 Implementation Plan

The actual implementation will take place in the following stages;

3.2.1 Development and construction

In 2013, prototypes were developed following regular consultations with refugees and host community with the aim to determine the most commonly used construction materials and technique used in the region. The result of these consultations led to the construction of the two prototypes.

- Mud Brick walled structure and mono pitch roof with C I sheet
- Bamboo daubed with mud walled structure with duo pitch roof with CI sheet roof

Even though the brick wall structure takes more time to implement, it is preferred to the Wattle and Daub due to durability. The wattle and daub creates termite conduits to the roof which in turn damages the roof support destroying the shelter. The wattle and daub walling is easy to construct but much more vulnerable to termite attack. The structures done with mud bricks are more durable compared to wattle and daub.

The residents of Ajoung Thok are familiar with mud brick making. They have been doing so for their housing needs in South Kordofan, hence it is faster and more convenient for them to implement a project where they have enough background know how.

Due to the above, the brick walling became the preferred option for Semi-permanent shelter project being undertaken in Ajoung Thok

3.2.2 Focal group discussion on the constructed prototypes

With these two prototypes presented, refugees had the option to choose from one of the two prototypes with minor modifications though most of the refugees opted for the mud brick walled structure due to the lack of availability of bamboo.

3.2.3 Community Participation and Mobilization (Establishment of refugee participatory groups)

In summary, all refugees, with the exception of EVIs will continue to construct their houses themselves. The shelter providing agency (DRC) will continue to construct houses for the vulnerable refugees.

Nevertheless, two sets of refugee implementation teams will continue to operate with two different functions. The selection process of members of these teams is carried by the camp management in collaboration with block leaders who recommended refugees with the required experience in shelter construction. Skilled and unskilled labor shall also be sought from the host community as may be necessary.

Refugee Zone technical supervisors recruited by the shelter implementing agency DRC shall continue to be provided with some form of cash incentive. The constitution of the technical supervisors shall continue to comprise of three or four skilled technicians allocated for each zone in the camp. Their role will be to continue to do community mobilization, shelter construction material distribution but

most importantly provide technical, practical supervision. This group of technicians will continue to be paid.

Refugee Shelter Committee (RSC) contracted by the shelter providing agency DRC be trained to support communities in building the shelter units and construct for houses for the PSNs. The role of these workers is task specific, and that is the complete construction of the shelter as per the design. This group will continue to be constituted of refugees who will be engaged from time to time to assist as the need arises.

Focus group discussions with the various groups of refugee representatives continue to reveal that the community is very keen in bringing their own contribution to the implementation of the project. Adequate information sharing and community mobilization are therefore key to enabling community participation and ensuring their ownership of the project. The refugees have been keen in molding of the bricks and in providing the unskilled labor required in the shelter constructions as the community contribution.

In this respect, DRC will continue to work with Refugee Shelter Committee which, together with the refugee leadership and with the support of the DRC Community Outreach workers will regularly consult with the refugee community to ensure appropriateness and relevance of the implementation methodology at all times, and continuously mobilize all the beneficiaries to prepare and participate in the construction of Transitional (semi-permanent) shelter. The Shelter Committee team will continue to mobilize community members to support each other in the fabrication of bricks and final construction of the shelter. Vulnerable members in the community will continue to be identified and supported by other members of the committee to the greatest possible extent.

3.2.4 Pilot of Use of Compressed Mud Bricks for Construction of Semi-Permanent Shelters for PSNs. Considering the fact that mud baked sun bricks has low durability when it is not protected with plaster and that extremely vulnerable individuals may not be able to maintain their homes frequently, in 2015, UNHCR will purchase some compressed brick molding equipment. The Shelter Implementing partner DRC will use the equipment to produce mud compressed bricks which will look much better and the ordinary sun baked mud bricks. It is expected that using compressed mud bricks will increase the durability of the EVI semi-permanent shelters.

3.3 Material Mobilization

In 2013, a market survey was undertaken to determine the availability and quantity of local materials within the camp and its vicinity. This was to ensure that adequate materials were sourced for the implementation process both locally and from other regions. DRC camp management undertook the logistic and procurement of these materials with funds from UNHCR. If funds permit additional procurements of shelter materials could be undertaken to meet with additional influx from South Kordofan.

Water trucking shall continue to be carried out by UNHCR logistic partner AAHI in consultation with WASH partner IRC. Water will be drawn directly from the four fully functional borehole wells in the camp and trucked to individual plots under construction. The logistic partner AAHI also will continue to supply red soil to designated dumping area in each zone from where the different households in

the zone undertaking semi-permanent shelter construction will transport the soil that they require. This will prevent the indiscriminate excavation of pits for brick making which is currently prevalent in the camp there reducing the risk to children falling into the pits as well reduce erosion of road edges and degradation of the environment.

3.4 The Construction Process

3.4.1 Soil

Each shelter requires a certain quantity of soil. For instance prototype 1 with mud brick will require approximately 30 tons of soil while prototype 2 with daubing wall system will require about two-thirds of that quantity 20 tons. Whatever would be the prototype selected by the stakeholder, each family will be in charge to collect required soil quantity at assigned locations such as unloading area (trucking), authorized road sides heaps, remains from road construction, approved digging site, or any other approved locations. Construction of the family latrine pit (4m depth, 80 cm diameter) in the family plot will provide approximately 4 tons of soil that will either be available for bricks fabrication, mud mortar or plaster work. The rest of the soil will be obtained from an already identified borrow pit and will be transported with the use of UNHCR trucks from the source to strategic points within the blocks. This soil collection exercise with water collection are the two key activities for the success of the project and therefore the Shelter Coordination Team shall continue to ensure that practical and feasible implementation strategy is put in place for smooth exercise.

3.4.2 Community Tools

Each family compound shall continue to utilize one set of family tools. Tools kit distribution among the family compound population will be done in a transparent manner by the compound leader. This kit will enable each family to fabricate their shelter and family latrine. Other tools issued during the emergency for shelter construction should also be considered during the Family Compound tools kit distribution as shown below:

Breakdown of EMERGENCY SHELTER KIT PER HOUSEHOLD			
1	UNHCR Tarpaulines (4m by 5m)	Piece	3
2	Local poles with bracket (2m length, Ø 8cm to 15cm)	Piece	8
3	Local poles with bracket (3m length, Ø 8cm to 15cm)	Piece	2
4	Local poles (5m length, Ø 8cm to 15cm)	Piece	3
5	Local poles (Rafters) 2m length Ø 8cm to 15cm	Piece	8
6	Binding Wire	LM	10
7	Nails (4")	Kg	1
8	Anti-termite (Used engine oil)	L	1
9	Local door (braiding of bush stick (0.7m x 1,8m))	Piece	1
10	Saw	Piece	1
11	Hammer	Piece	1
12	Spade	Piece	1
13	Digging bar	Piece	1

3.4.3 Water Access

Effort shall be made to ensure that water is provided in sufficient quantities by the WASH partner in the predefine water point collection. Approximately 45 gallons will be required per shelter. From

these points refugees will be responsible for water transportation to their family plots. Barrels, jerry can and or bucket will be at disposal for each household.

3.4.4 Brick Making & Construction of Walls

DRC Field Shelter Assistants in close consultation with the refugee technical supervision team will continue to be responsible to monitor mud bricks production. This should allow appropriate quality of mud bricks fabrication. In addition, production status reporting will be provided on daily basis.

After the curing period of the mud bricks, the joint team will assist the beneficiaries for shelter masonry works. To ensure quality work of bricklaying, the joint team will also continuously do inspections to ensure that block courses are plumb and have proper jointing.

3.4.5 Roof Construction

After the completion of the walls of each structure, timber and other roofing materials will be supplied for the commencement of roof construction, doors and windows. When the roof structure is completed, technical inspection by DRC Field Shelter Assistant will take place before providing corrugated iron sheets; this exercise will also be reported.

3.4.6 Completion and Visibility

Final inspection by DRC Field Shelter Assistant will take place when roof, door, windows, walls and drainage are completed. If completed work is approved, a visible address plate including description of the shelter location, UNHCR and IP logos will be fixed at a visible location on the shelter wall

3.5 Shelter Monitoring

Shelter monitoring activities will be the responsibility of the DRC and its Shelter Field Assistants team. All construction stages that need approval for completion of work require appropriate monitoring and technical supervision on daily basis. DRC will provide individual technical and illustrated inspection report for each family shelter completed. Meanwhile the Shelter Manager will provide weekly situation report about progress and quality work that will be shared with the Shelter Committee members, UNHCR and other stakeholders.

3.6 Maintenance

The beneficiaries will continue to be in charge to maintain their family shelter. From the beginning of the project, the Shelter Manager will be responsible to do appropriate sensitization in this regard. The two principal maintenance activities that beneficiary must consider are the preservation of clear drainage all around the shelter and the application of one mud plaster coat every 6 month, preferably after the rainy season. In order to anticipate any imminent termite attack or any other structural failure, the Shelter Manager will organize regular visual inspections in the camp.

3.7 Training and Capacity Building (Demonstration of Shelter construction at the block level)

Two form of training will continue to take place as explained below:

3.7.1 Direct Practical Demonstration: This form of training will commence with the construction of EVI shelter in every block that is freshly being populated. Each Technical team and its supervisor will be in charge by zone to build one demonstration family shelter in each freshly populated block. This demonstration shelter will allow refugees residing in the block to receive a first training during the

construction process. Meanwhile additional demonstration shelter will continue to be integrated in the training whenever DRC constructs family dwelling for the vulnerable families.

3.7.2 Individual On-site guidance: Since many individuals in Ajoeng Thok continue to show interest in construction of semi-permanent shelters, the number of individual structures to be built at any one time per zone and the number of family houses to be built shall be determine by the capacity of DRC to monitor the shelter kit distribution exercise as well as the ability of the Supervision team to effectively monitor and ensure that the minimum acceptable standards are met. Therefore the extent of individual site supervision will be dictated by the number of houses that could be serviced at any given time. This situation will influence the capacity and ability of the specific number of households to undertake their shelter construction at any given time.

3.8 Monitoring and Evaluation

The Shelter Management Committee shall continue to be responsible to monitor the implementation of the shelter projects.

The Shelter Management Committee (SMC) is composed of the following members:

- At least three (3) representatives from the elected refugee leaders
- Chairman of the Shelter Working Group
- DRC Camp manager, Shelter manager, Community services officer
- UNHCR technical expert, field officer
- Representative of the Commission for Refugee Affairs (CRA)
- Representatives of WASH partner
- Representatives of other relevant partners (TBD)

The basic responsibilities of this committee shall continue to include but not limited to:

- Overseeing the overall project review and providing guidance
- Organizing meetings on a biweekly or monthly basis after every 2 weeks to appraise the shelter project and recommend any changes to the overall strategy.

The meeting shall continue to be chaired by DRC.

4. Time Frame for the Implementation of first 1562 shelters

Principal Activities	January				February				March				April				May				June			
2015	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Partners coordinate																								
Refugee/Host Community Consultation																								

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5. Conclusions

The construction of the semi-permanent shelters in the past year has exposed a couple of constraints and challenges. The local authorities have become more sensitive over the use of local materials. There are difficulties timely delivery of red soil due to sometimes mechanical breakdown of tipping truck and other times the truck is engaged in very important activities outside such as road construction. Water for brick making has been a challenge as sometimes there is mechanical breakdown in the water stations. However, the UNHCR site planning team, the DRC shelter team and other relevant partners continue to work together to address these issues. It is envisaged that as the implementation continues there will be other types of difficulties that will be encountered, therefore proper monitoring will continue to be a crucial part of the program to ensure that appropriate mechanisms are put in place to deal with and thrash out these issues as they arise.