Case Study: **Ethiopia – 2011 – Sudanese Conflict**

**Keywords:** Planned and managed camps, T-shelter, Site planning, Training, Tools, Construction materials, Infrastructure.

**Country:** Ethiopia

**Project location:** Bambasi camp, Assosa

**Conflict:** Sudan and South Sudan conflict

**Conflict date:** September 2011

**Number of people displaced:** 40,000 refugees by end of 2012

**Project outputs:**
- Camp for 12,000 people (3600 households)
- 2,175 shelters built (two organisations, 70 percent built by one organisation)

**Shelter size:**
- <2 people: 10m²
- 3-4 people: 14m²
- 4-6 people: 21m²

**Cost per shelter:**
- US$ 640 - 10.5m²
- US$ 800 - 14m²
- US$ 920 - 21m²

**Project timeline**
- Second partner begins shelter work
- First partner begins shelter work
- Work on site begins
- Site master planning
- Need for new camp identified
- 54,000 Sudanese refugees in Ethiopia
- Conflict restarts in Sudan
- Returns begin
- Previous history of conflict and refugee influxes

**Project description**

The organisation planned and built a camp for Sudanese refugees. Semi-permanent shelters were constructed by refugees, with two partner organisations providing materials, carpenters and training. Refugees were able to choose their own plot configuration and the shelters were constructed with locally procured materials.

**Strengths and weaknesses**

- The shelters followed local housing designs to make them cool in the day and warm at night.
- The shelters were cost-effective, and were durable alternatives to tents.
- Materials were procured locally, reducing transport costs and injecting cash into the local economy. This provided some economic compensation to the host community.
- Shelter dimensions were tailored according to family size.
- Each plot was provided with a fence, a latrine and a shelter.
- Refugees contributed labour to build the shelters. This helped to foster a sense of ownership.
- Initial plans to for the organisation to build the shelters itself were dropped as other organisations had management systems better suited to implementation.
- Technical staffing capacity was a constant challenge.
- Difficulties in sourcing and transporting mud for the walls were not foreseen.
- Initial estimates of construction time were too low, and additional carpenters and masons were required. Fewer shelters were built than initially anticipated.
- Many refugees did not receive a shelter. Of those who did, many received a tent whilst waiting.
- Bamboo is grown extensively in the area, the eucalyptus was sourced from a neighbouring state owned forest.
- There was a very strong input from the government of Ethiopia in all issues relating to the camps.
- Many families were separated when the first families arrived. The rehousing of refugees was undertaken in parallel with replanning the camps and a family reunification exercise.
- Sudanese refugees brought large numbers of livestock with them. Space for animals in the camp had to be allocated (See B.3).
Before the influx

Sudanese refugees have sought safety in Ethiopia since 1969, first settling in the Gambella region. Additional refugee influxes 1983, 1987 and the early 1990s led to the creation of five refugee camps in western Ethiopia. Three were established in the Gambella Regional State and two in the regional state of Benishangul-Gumuz in the area surrounding the town of Assosa.

Following a peace agreement between north and south Sudan, refugees began returning home from March 2006 onwards and three of the camps could be closed. 23,000 refugees remained in one camp in Gambella and a further 4,000 remained in one of the Assosa camps. The refugee population included several hundred refugees from the Democratic Republic of Congo. Those remaining in the camps included several hundred Congolese people.

Displacement in 2011

Fighting recommenced in September 2011 in the Blue Nile State of Sudan, displacing more refugees into Ethiopia.

By mid October 2011 there were an estimated 54,000 Sudanese refugees and asylum seekers in Ethiopia. About 34,000 were registered and accommodated in three refugee camps: Sherkole and Tongo near Assosa and Pugnido near Gambella.

Most of the new arrivals from the Blue Nile State stayed with host communities in border areas, and a transit centre was established at Ad-Damazin. With the camps at full capacity, this transit site became more permanent. Given the scale of the influx of refugees, new camps were needed.

Site selection

Negotiations began with the national government’s refugee agency and the local government to identify sites.

A 450 hectare site owned by the adjacent village was identified at Bambasi, 50km from the border. It had with suitable drainage and access and was around 600km or a two day drive from Addis Ababa, the capital of Ethiopia.

The host community and the refugee population had a similar tribal heritage which, once some initial differences were resolved, led to a good relationship between the two communities.

Site planning

From March 2012 the preparation of the master plan began. The plan took four months to develop and agree. The process was significantly delayed by complications in awarding the contract to build the access road.

The camp was designed to be no closer than 500m to the village. The camp was divided as follows:

- Number of Zones: 3
- Number of Blocks: 40
- Number of Communities: 265
- Number of Family Plots: 5,240
- Average Plot Size per Household: 15mx10m

Site development

Despite delays, by the summer of 2012 plot demarcation had begun and the road was upgraded in order for it to be functional during the rainy season.

Once Bambasi camp was established, water was provided from eight shallow wells (up to 60m deep). Later three boreholes were developed and a system of 34 tap stands was established.

Shelter construction

The organisation initially planned to build all of the shelters itself, and built some sample shelters. However, it became clear, that the organisation lacked the management systems required to build the numbers of shelters required. As a result an alternative implementation process was chosen, using partner organisations.

Two organisations were identified to implement the shelter programme.

Implementation by the partner organisations began in August/September 2012.

A fixed design of shelter (a tukul) was built. It was based on the shelters built and lived in by the host community, differing from the shelters that the refugees were accustomed to building. As a result construction training was required.

Carpenters and materials were provided and managed by the implementing organisations, while families had to provide the labour. Most families were able to provide the labour, but in the case of the most vulnerable households, some support was required.

The implementing organisations both provided a site engineer to lead the project and a site foreman to manage the teams of carpenters and masons in the camp. Both organisations required significant logistics support.
In the project plans, a carpenter and a mason, working with families would be able to build ten shelters in fifteen days. In practice, only half the number of shelters could be built. This was due to an underestimation of the training required by those constructing the shelters, and an underestimation of the number of households who would require additional assistance.

**Selection of beneficiaries**

Refugees were brought to Bambasi camp from the transit site near the border at Ad-Damazin. The refugee population had continued to rise while the camp was being built, and many refugees had settled near the border.

Shelters were allocated according to family size. Each family was allocated a 10m x 15m plot. For families with seven or more people, two plots were allocated.

**Logistics**

All of the shelters were built using locally available materials: bamboo, grass (for a 15cm thick roof), rope and mud. This approach was much cheaper than sourcing materials in the capital, also cutting transportation costs.

Each shelter required significant volumes of grass for thatching the roof and for strengthening the mud walls. The grass could only be harvested seasonally with the main harvest being in March. This did not coincide with the construction, which needed to continue all year round to meet the needs.

The sourcing of sufficient quantities of grass also proved more challenging than anticipated. Initially mud came from digging the latrine pits but this was insufficient for the initial shelter needs, and for remudding after the rains. By the end of 2012, the organisation was still trying to identify sources for mud and to organise sufficient trucking for the large volumes required.

The camp water supply was sufficient to cope with the volume needed to mix with the soil.

**Situation at the end of 2012**

By the end of 2012, there were over 86,000 Sudanese refugees living in Ethiopia.

Approximately 3,700 refugees formerly registered in Ad-Damazin still remain in the local community after opting out of the formal relocation process to Bambasi camp in June and July 2012. A few dozen refugees moved spontaneously to Bambasi in September. In October 2012, 2,000 refugees were relocated to the camp by local officials and were accompanied by around 8,000 livestock.

**Materials list**

Below is a materials list for different shelter sizes.

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity / shelter size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelter (small) 10m²</td>
<td>10 14 21</td>
</tr>
<tr>
<td>Eucalyptus poles 5m x 10cm</td>
<td>11 14 14</td>
</tr>
<tr>
<td>Eucalyptus/bamboo 5m x &lt;8cm</td>
<td>27 33 40</td>
</tr>
<tr>
<td>Eucalyptus pole 5.8m x 12cm</td>
<td>1 1 1</td>
</tr>
<tr>
<td>Bamboo 5m length</td>
<td>37 39 90</td>
</tr>
<tr>
<td>Mud with grass (m³)</td>
<td>2.45 4.37 4.89</td>
</tr>
<tr>
<td>Bamboo (roof) 20cm</td>
<td>57 66 80</td>
</tr>
<tr>
<td>Bamboo reeds 50cm</td>
<td>25 45 50</td>
</tr>
<tr>
<td>Grass (bunch)</td>
<td>15 22 30</td>
</tr>
<tr>
<td>Rope and strings</td>
<td>100m 150m 200m</td>
</tr>
<tr>
<td>Door with frame, hinges and lock</td>
<td>1 1 1</td>
</tr>
<tr>
<td>Window 0.6m x 0.6m</td>
<td>1 1 1</td>
</tr>
<tr>
<td>Nails 2.5&quot; (kg)</td>
<td>0.5 0.5 1</td>
</tr>
<tr>
<td>Nails 4&quot; (kg)</td>
<td>1 1 2</td>
</tr>
<tr>
<td>Used motor oil</td>
<td>3litres 3litres 5litres</td>
</tr>
<tr>
<td>CIS Nails</td>
<td>0.25 2.5 0.25</td>
</tr>
<tr>
<td>Fence</td>
<td></td>
</tr>
<tr>
<td>Eucalyptus 5m x 10cm</td>
<td>5</td>
</tr>
<tr>
<td>Bamboo (1m spacing)</td>
<td>80</td>
</tr>
<tr>
<td>Tools</td>
<td></td>
</tr>
<tr>
<td>Claw Hammer</td>
<td>1</td>
</tr>
<tr>
<td>Bow saw</td>
<td>1</td>
</tr>
<tr>
<td>Shovel</td>
<td>1</td>
</tr>
<tr>
<td>Meter rule</td>
<td>1</td>
</tr>
<tr>
<td>Pick axe</td>
<td>1</td>
</tr>
<tr>
<td>Axe</td>
<td>1</td>
</tr>
</tbody>
</table>