

## A.12 Jordan – 2014 – Syria conflict

### Case study

**Keywords:** Emergency shelter.

**Emergency:** Syria crisis, refugees in Jordan.

**Date:** March 2011: conflict begins (ongoing). Refugee numbers increase from December 2011 onwards. Zaatari camp opens July 2012.

**People affected:** Over 3.1 million refugees from Syria. Around 620,000 in Jordan (October 2014).

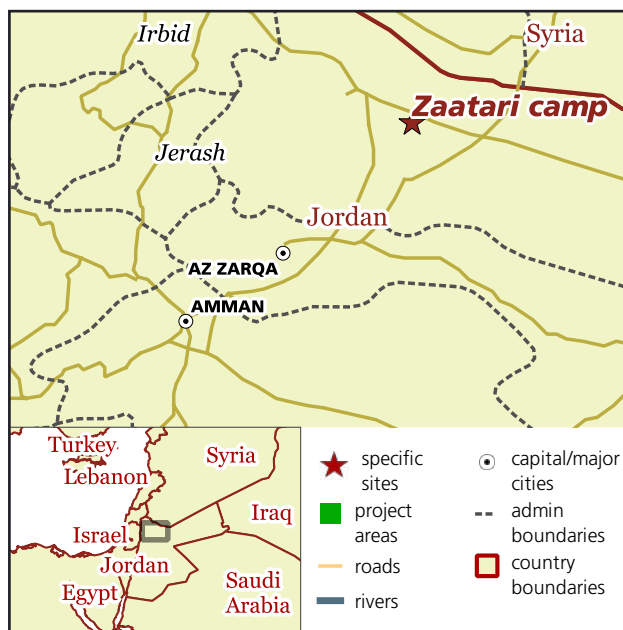
**Project location:** Zaatari camp, Mafraq Governorate.

**Beneficiaries:** 20,000

**Outputs:** 5,000 recycled tents, repackaged and redistributed to new arrivals

**Shelter size:** Standard humanitarian family tents (23m<sup>2</sup>)

**Cost:** 2.1 Jordanian dinars (US\$ 2.94) per tent, including collection from camp, assessing the tent, repair materials, mending, and repacking.



### Project description:

When families in Zaatari refugee camp started to receive pre-fabricated container shelters, a stockpile of used tents began to build up. A tent-recycling project was developed to repair and repackage used tents for new arrivals. Recycling, instead of destroying or giving away the used tents, generated an estimated saving of around US\$ 3,000,000 (US\$ 600 per tent). Tent components that are too damaged to be re-used for shelters have been used for other purposes.

### Emergency timeline:

**[a]** July 28th 2012: Zaatari camp opens in response to increasing numbers of Syrian refugees in Jordan. Crisis ongoing.

### Project timeline (number of months):

**[1]** Used tent collection begins at the start of April 2014, with the first repaired tents distributed by end of that month.

**[2-ongoing]** Project likely to continue to end of 2014.



### Strengths

- ✓ Around 90% of the materials used by the project came from the used tents themselves.
- ✓ The project required only basic skills and could be set-up easily, moving from planning to implementation phase in less than a month.
- ✓ Low implementation costs have resulted in large financial savings.

### Weaknesses

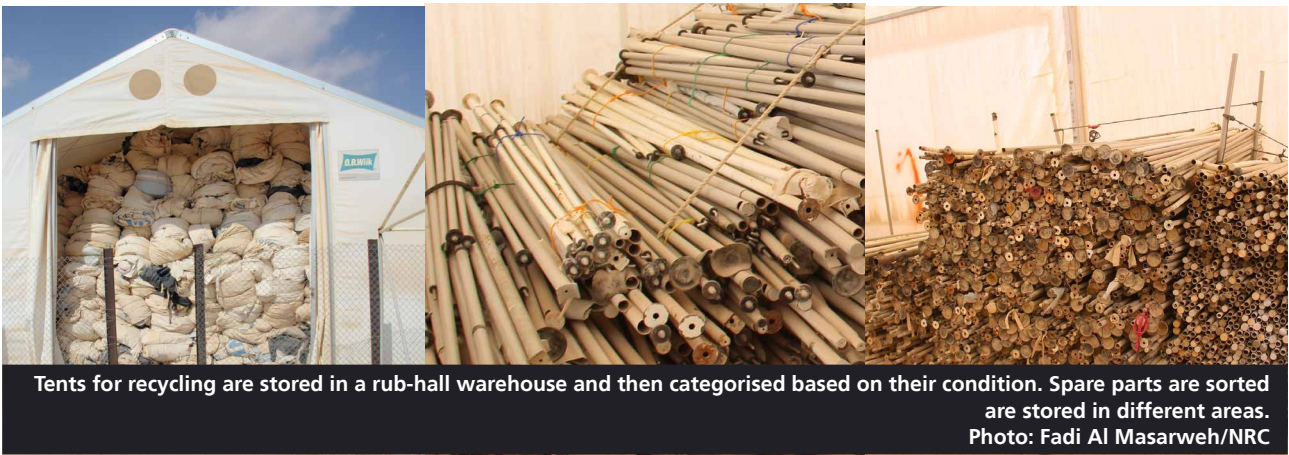
- ✗ Considerable storage and dry warehousing areas are required.

### Observations

- The success of the project depended on the specific context where tents were replaced by containers whilst they were still functional. Replicating the project would rely on similar circumstances.



Project staff carrying tents to the rub halls to begin the recycling process.  
Photo: Fadi Al Masarweh/NRC



Tents for recycling are stored in a rub-hall warehouse and then categorised based on their condition. Spare parts are sorted and stored in different areas. Photo: Fadi Al Masarweh/NRC

## Project implementation

Zaatari refugee camp opened in July 2012, with family tents distributed to all new arrivals. Around eight months later, pre-fabricated containers were rolled out as a new shelter solution to replace the tents, providing better protection from the weather, and greater privacy and dignity for the refugees. The containers are standard 20-foot (6-metre) sandwich-panel containers, similar to those used as offices across humanitarian operations.

As the families moved into the new shelters, tents were collected and stockpiled by the organisation. The organisation quickly found itself with thousands of used tents, many of which were still in good condition.

Given the donor logo on the tent canvas, only limited options were available for reusing the tents. It was therefore decided that all efforts would be made to recycle tents wherever possible, reuse whatever other material remained for non-shelter projects, and send the rest for disposal.

After a very short planning period in April 2014, the recycling project was rolled out in the same month. The project consisted of three phases:

### Phase 1 – tent collection

Tents vacated by families moving in to the new shelter were collected and taken to the warehouse for first assessment.

### Phase 2 – validity check

A visual check was made to make sure that all tent components were in good condition. The spare parts

(tent pegs, poles, ropes etc.) were sorted in a separate warehouse. The tents themselves were allocated to different warehouses following their categorisation through a visual assessment:

- Useful category – tent canvases were moved to a separate Rub-hall where they have been repackaged with all other needed items (poles, pegs, ropes etc.), before being re-distributed to new arrivals.
- Damaged category – tent materials were used for spare parts. Some parts, such as damaged canvas, were used as additional roofing protection for container shelters, or as patches for tents needing repair. Other damaged spare parts were recycled for use as non-shelter items.
- Repairable category – these tents were in reasonable condition but required patches or the repair of holes. Repairs were made with sewing equipment or glue, using salvaged canvas for patches.

### Phase 3 – distribution

Re-usable and repaired tents were sent back to the camp set-up area for distribution to new arrivals.

Some missing parts, such as pegs and poles, were fabricated in a local workshop and then purchased by the organisation to complete tent sets that were missing certain items.

A dedicated team repaired pegs and poles on-site as many of them only required basic work such as re-straightening.

The recycling rate for the project has depended upon the number of prefab containers arriving each day and the number of tents collected (between 20 and 200 per day). To date, from more than 11,000 tents collected, the organisation has been able to recover and re-distribute 40% of them – around 4,500 tents.

## Non-shelter uses for salvaged materials

Metal poles have been re-used to build frames for beds or other furniture items and even umbrellas.

Other than as an additional roofing material, damaged canvas can be re-used in many different ways, such as a fencing material or for making bags, clothes or children's toys.

The organisation's Youth programme is using the cleaned, left-over canvas as textile material for vocational training courses offered in the camp. Students are trained to make various items from the canvas and the sewing course has expanded into an independent workshop.

The items are made as part of the Youth course and are not for resale. However, they have proved very popular with donors as souvenirs of the project.

The children's play equipment that has been made from left-over tent parts are used in the children's play areas in the camp.



Examples of furniture, play equipment, and disability aids made out of left-over materials from the tent recycling project. Photo: Fadi Al Masarweh/NRC