Site planning and shelter

Camp Restructure

Project Report

Zaatari Refugee Camp

April 2016

Camp Restructure Project

Location: Zaatari Refugee Camp, Mafraq Governorate, Jordan

Project start: April 2015

Project completion: April 2016

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Table of contents

Introduction

Zaatari Camp was established in July 2012. To-date, over 400,000 refugees have passed through the camp. The majority of refugees relocated within the host communities across Jordan, while some voluntarily returned to Syria. Currently, the camp is home to around 80,000 refugees (13,500 HH), residing in 12 districts.

The mobile nature of the refugee population in/out of the camp, coupled with continued new arrivals up-to April 2014 when Azraq Camp was established, disrupted infrastructural planning and assistance delivery as refugees tended to change their locations within the camp very frequently.

In order to improve the camp infrastructure and upgrade refugee shelters, UNHCR has maintained the grid system of Zaatari on the masterplan, creating blocks and streets to clarify the skeleton and land use within the camp, and facilitate communication with the community, creating a community structure. Site planning unit has implemented a settlement restructuring plan, which includes relocation of households to ensure accessibility and preparation for the ongoing infrastructure projects such as waste water, water supply, road and electricity networks. The result of the project includes the implementation of an address system for every household, and mapping their boundaries on the masterplan.

In coordination with GOJ in January 2015, UNHCR has adopted the installation of new immobile shelter prefabs, fitted with a kitchen, WASH facility and 22,5 m^2 concrete flooring. The new design was coordinated with new donors, and RAF and SNC were the first to respond in providing these shelters. The new prefabs are linked to the waste water, water supply and construction of service roads. It has also addressed the frequent requests of the Syrian refugee community for increased living space as well as private use of WASH and hygiene facilities, and supported the on-going efforts to restructure the camp and improve refugees' access to services and facilities. The increase of space and comfort responds to continuous protection concerns particularly raised by women and girls within the household.

Methodology

In April 2015, UNHCR site planning took the lead to initiate the project, undertaking household assessment in terms of area, location, presence of shelter, private facilities, extension areas, number of individuals living in the house, and if there are any persons with physical disabilities, generally checking the condition of the household and ensuring the minimum shelter needs are met. The assessment was documented with photos and sketches, and on a later stage recommendations were made to upgrade and/or relocate. The process was time consuming as there was no capacity of architects and engineers for implementation.

On a later stage, our implementing partner NRC were requested to join and support the process. Starting with one engineer, and later growing to a team of 7. REACH were also requested to join for the assessment and mapping phase.

The following steps were taken at the later developed method of implementation:

1. Household assessment is conducted by REACH, one block at a time where they visit every household, taking all the relevant details through an ODK survey. Below is a sample of the questions in the survey:

District	Block	REACH Address	Household Area (m²)	Is this HH inhabited?	Is this HH a compound or single family?		Number of families living in this HH

Private facilities in this HH			Type of shelter (observed)	Number of Caravans (observed)	Caravans: fixed, mobile or both	Number of tents (observed)	Does this HH have an extension/porch?

Main material of extension/porch	Registration number: manual	Name of head of household	Total number of persons with physical disabilities in this HH	Total number of pregnant women this HH	Age of individuals (years)	Gender of individual

Fig. 1: screenshot of HH assessment ODK survey.

2. REACH digitalizes the data such as drawing HH boundaries on the latest satellite image, exports information collected into an excel sheet, and provides a CAD layout of every district.

3. UNHCR analyzes data provided by REACH, and makes the necessary recommendations in terms of ensuring basic shelter standards are met and if there is a need to provide new prefabs, relocation to ensure accessibility to every household, to shift away from high tension line, and to shift away from service lines such as communal toilets and kitchens.

4. Recommendations list and maps are provided to NRC for implementation in the following sequence:

   - A community team with the site engineer visits households, the community is informed that some households need to relocate, explaining the process and benefits of the project, and giving 48 hours for households to ensure they are prepared for the movement the next day.

   - Households are relocated the next day, and recommended prefabs boundaries are marked at the beneficiaries plot, taking into consideration that NRC ensures data provided from the survey is still relevant on site. Cranes are provided on a daily basis to facilitate the relocation of shelters.

Fig. 2: Crane moving a caravan to ensure accessibility of the street.

5. The recommendations list is shared with UNHCR field unit after relocation to provide feedback and facilitate the distribution of the new prefabs once their construction is complete.
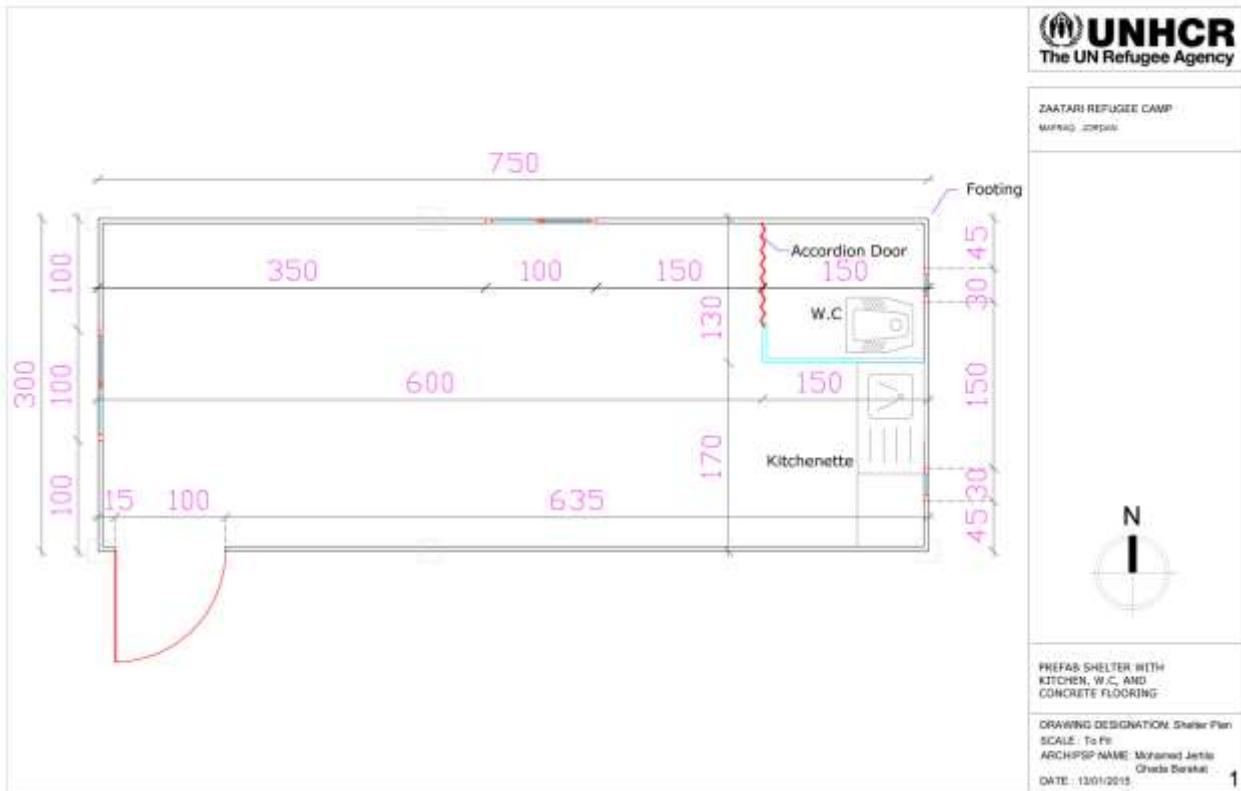

Fig. 3: Layout of the new prefab distributed.

6. The surveying team from NRC creates a new boundary layout for every household in the district, and marks an address number and street name on the layout and on site. The address number consists of 3 parts: District (قطاع) resembled with "ق", block (حارة) resembled with "ح", and household (منزل) resembled with "م".

Fig. 4: Address number and street name marked on a household's elevation.

7. A final as-built layout is submitted for every district, showing the total number of plots, vacant plots, occupied and unoccupied plots, along with an excel sheet identifying every plot address, and registration numbers of all households living in that plot.

Fig. 5: Final layout of district 06, Block 04.

HH Address (English)	HH Address (Arabic)	Case ID	Remarks(Plot occupied / unoccupied/ Vacant)	Position Y	Position X
D06-B04-H01	01،-04،-06ف	388-13C64385	Occupied	276039.8147	189846.5812
D06-B04-H02	02،-04،-06ف	388-13C57846	Occupied	276066.3583	189836.8040
D06-B04-H03	03،-04،-06ف	388-13C64563	Occupied	276058.1057	189829.7230
D06-B04-H04	04،-04،-06ف	388-13C62822	Occupied	276054.8055	189820.0744
D06-B04-H05	05،-04،-06ف	388-13C61923,388-13C61928,388-13C61926	Occupied	276050.2708	189806.8260
D06-B04-H06	06،-04،-06ف	388-13C61541	Occupied	276047.1653	189795.1796
D06-B04-H07	07،-04،-06ف	841-14C06398	Occupied	276042.0578	189786.6505
D06-B04-H08	08،-04،-06ف	388-13C09062	Occupied	276040.5885	189776.5133
D06-B04-H09	09،-04،-06ف	841-13C23858	Occupied	276060.7362	189782.4392
D06-B04-H10	10،-04،-06ف	631-14C00193	Occupied	276063.8143	189791.5564
D06-B04-H11	11،-04،-06ف	388-13C64173	Occupied	276070.2326	189804.1458
D06-B04-H12	12،-04،-06ف	631-14C06650	Occupied	276075.2207	189816.3067
D06-B04-H13	13،-04،-06ف	631-14C01641	Occupied	276079.3175	189831.0465
D06-B04-H14	14،-04،-06ف	631-13C00024	Occupied	276093.7084	189825.6801
D06-B04-H15	15،-04،-06ف	388-13C15247	Occupied	276089.6000	189817.1961
D06-B04-H16	16،-04،-06ف	388-13C60566,388-13C23457	Occupied	276081.4032	189794.8517
D06-B04-H17	17،-04،-06ف	388-13C63622	Occupied	276076.4563	189780.3522
D06-B04-H18	18،-04،-06ف	388-13C66201	Occupied	276066.3010	189772.1187
D06-B04-H19	19،-04،-06ف	388-13C63719	Occupied	276091.2855	189768.4015
D06-B04-H20	20،-04،-06ف	631-14C06057	Occupied	276097.8938	189781.8712

Fig. 6: Address roll out with x and y locations on the final spread sheet layout.

8. The address data collected will be integrated into ProGres in order to have one format data for all households in the camp. This will be done with the support of Information Management and registration units.

Shelter Graffiti

Following the camp restructure, the shelter graffiti implementation has started in November 2015, identifying every district with a theme and color code to be reflected in paintings on shelter facades facing the ring road. With NRC as an implementing partner, a team of artists where chosen to contribute to this project through cash-for-work.

District	Theme	Color code
1	Sea/ocean	Dark blue
2	Cities	Orange
3	Buildings	Light Red
4	Food	Gold
5	Plants/flowers	Green
6	Planet	Yellow
7	Culture	Brown
8	Health	Light green
9	Water usage	Light blue
10	Language	Purple
11	Books/education	Turquoise
12	Poetry	Burgundy

Fig. 7: A table of themes and color codes assigned per district, and examples of painting works in the field.

Challenges and Lessons learned

1. Refugees keep moving their HH within the camp.

2. Minimizing the waiting time between assessment and assistance to ensure information is still relevant.

3. Having a larger team to complete camp restructuring in all districts.

4. Minimizing the time period between allocation of prefabs within the HH and delivery of prefabs.

5. Refugees moving to the area were camp restructure is being implemented hoping to receive a prefab are already spotted since the data collection part was complete before the implementation process.

Conclusions

As a final stage of the project, below are the outcomes:

Number of HHs visited	14096
Number of relocated shelters	3275
Number of HHs upgraded with a new shelter	1450
Number of HHs that require a new shelter	837
Number of HHs assisted with an address number	14917
Number of occupied plots	12480
Number of unoccupied plots	1201
Number of vacant plots	1236
Number of streets within the ring road	152
Number of blocks in all districts	193

The map below shows the number of existing households, which reflects the occupied and unoccupied plots within the camp based on the Camp Restructure address numbers. The population of the camp is based on the assessment provided by REACH, were their data collection took place over an interval of 6 months (June 2015 – November 2015), which explains the outcomes in terms of the total population of the camp.
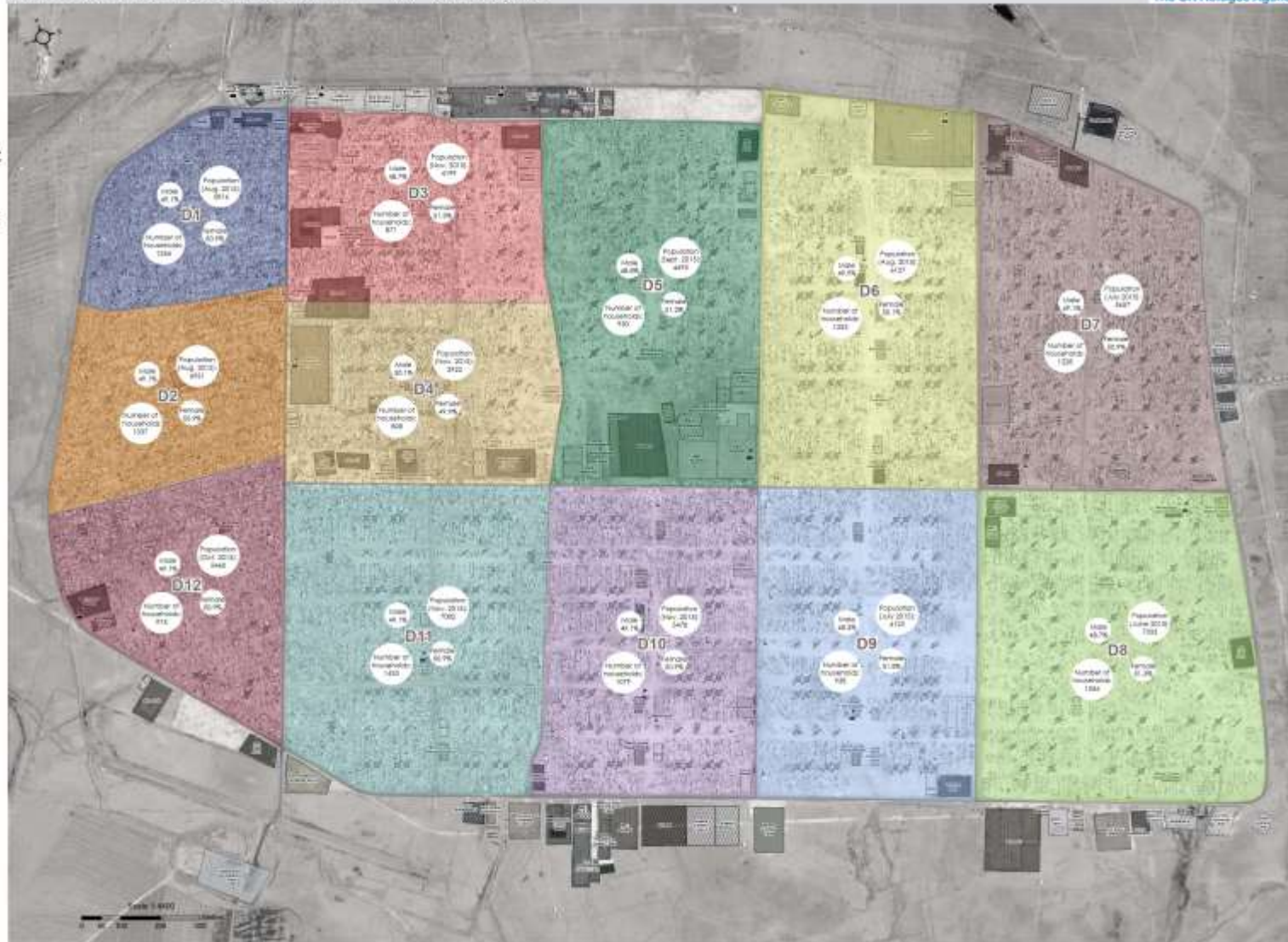
Fig. 8: A population map indicating population percentage and household number per district
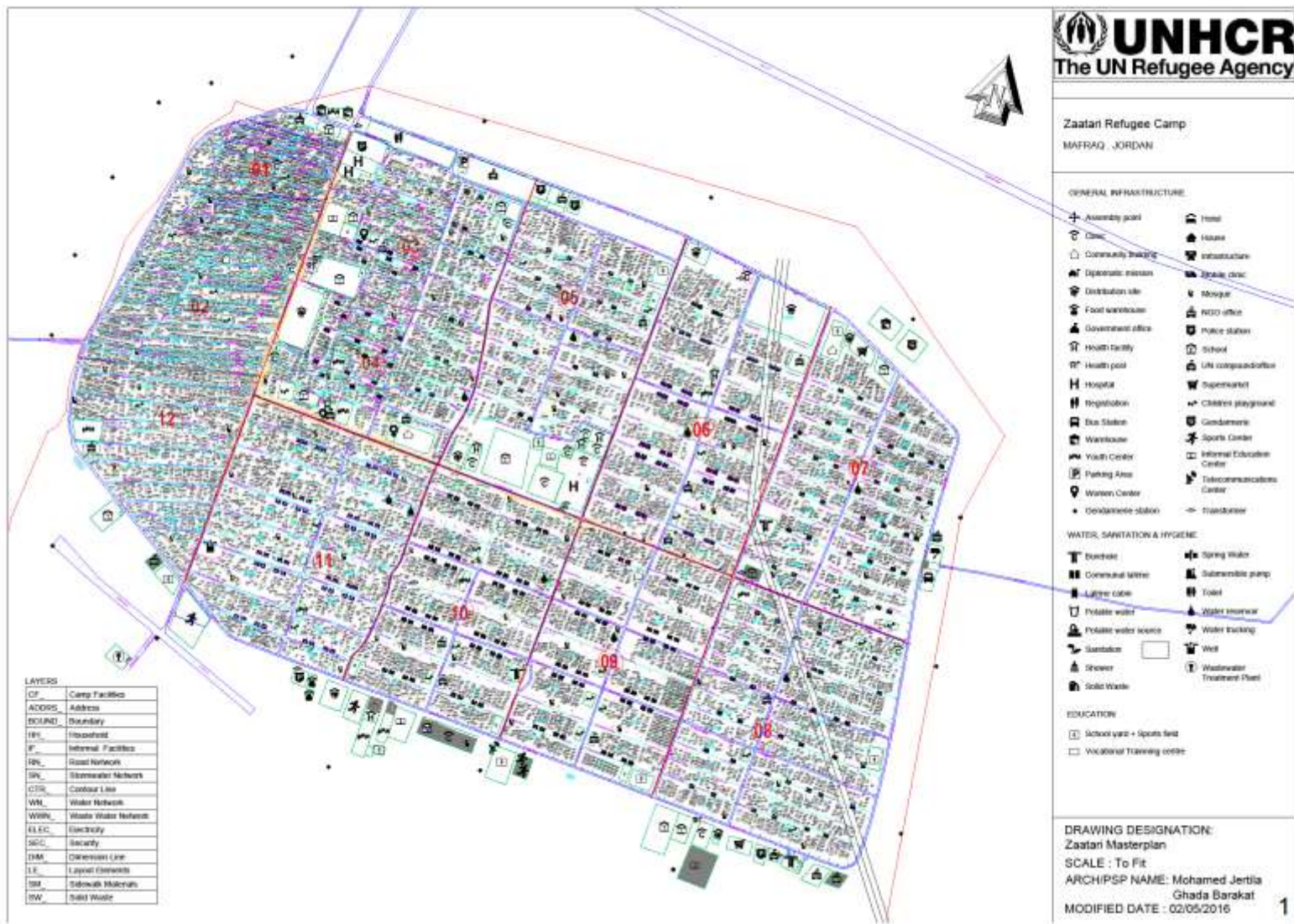
Fig. 9: Zaatari masterplan drawing including household boundaries and infrastructure outlines.