



Damage & Rehabilitation Assessment:

Syria - Al-Thawrah (Tabqa)

September 2021

Context

The city of Al-Thawrah, also known as Tabqa, located in Ar-Raqqa, is of strategic importance as a result of its proximity to the Tabqa Dam and Tabqa military airbase.¹ The dam is the largest hydroelectric dam providing electricity in Syria.² Between March and May of 2017 a successful operation was conducted to regain control of the city, and its adjacent dam and airbase, from ISIL who had controlled the city since 2014.^{3,4} During the operation the city faced significant damage, particularly the areas closest to the dam where the clashes were most severe.^{5,6}

Despite key infrastructure and services being damaged, thousands of people spontaneously returned to the city within days of the takeover, and further waves of returnees and IDPs have moved to the city since.^{7,8} As of August 2021, Population Taskforce data reported 76,700 individuals residing in Al-Thawrah and the adjacent Ayed Saghir neighbourhood, of which 24% were IDPs and 76% residents.⁹ There are, however, significant shelter needs in the city, with HNAP's KIs reporting that Shelter was a priority need for an estimated 50-60% of IDPs and 45-55% of Residents in Al-Thawrah and Ayed Saghir.^{10,11}

As of December 2021, 3,314 IDPs were residing in 26 collective centers in the city.¹² In the collective centers residents face various challenges, including a lack of privacy and dignity, and a lack of access to basic goods and services.^{13,14} However, HHs living in finished buildings/apartments also are experiencing challenges. HSOS' KIs reported rent increases of over 75% in the last year, impacting IDPs in particular, the vast majority of which are reportedly renting.¹⁵ In addition KIs reported that there were both IDP and Resident HHs unable to undertake repairs as a result of shelter items such as windows and plaster being too expensive.¹⁶

In addition to the shelter issues, there are continued safety and security concerns as a result of unexploded ordnance in the area, with the North-East Syria Mine Action Working Group identifying a number of potential hazards and hazard areas in the city, as of March 2021.¹⁷

Estimated Values	Al-Thawrah		Ayed Saghir	
	IDPs	Residents	IDPs	Residents
Population (Population taskforce) ¹⁸	17,954	38,184	316	20,246
% of HHs with shelter as a priority need (HNAP) ¹⁹	50%	45%	60%	55%
% of HHs in solid/finished apartments/houses (REACH) ²⁰	90%	100%	100%	100%
% of HHs in collective centers (REACH) ²¹	10%	0%	0%	0%
% of HHs renting (REACH) ²²	91-99%	0%	81-90%	0%

¹ Al Jazeera, 'US-backed Syrian forces 'fully capture' Tabqa from ISIL', 11 May 2011

² OCHA, 'Water crisis Northern and Northeast Syria immediate response and funding', 13 September 2021.

³ SOHR, 'An air raid cuts off water from a city in Raqqa', 28 February, 2014

⁴ SOHR, '31 massive explosions in al-Raqqa', 27 September 2014

⁵ Al Jazeera, 'Kurdish forces 'take 90 percent' of Syria's Tabqa', 2 May 2017

⁶ Al Jazeera, 'US-backed Syrian forces 'fully capture' Tabqa from ISIL', 11 May 2011

⁷ OCHA, 'Syria Crisis: Ar-Raqqa Situation Report No. 5', 15 May 2017

Overview and Methodology

This assessment was conducted by REACH in partnership with UNOSAT to identify buildings that are damaged, destroyed, demolished, rehabilitated, or reconstructed in Al-Thawrah city. In addition to the central neighbourhoods of Al-Thawrah, the assessment also includes Ayed Saghir. This report aims to be a tool for local government and humanitarian organizations to facilitate the planning and implementation of humanitarian activities in Al-Thawrah city. In particular, when used together with identified shelter needs as reported by the Humanitarian Needs Assessment Programme (HNAP), the report aims to support humanitarian actors performing emergency repairs and rehabilitation of War Damaged Shelters (WDS), to identify neighborhoods most in need of assistance.

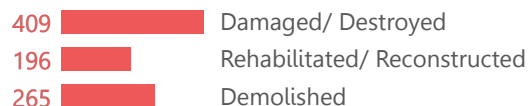
Using high resolution satellite imagery acquired on 17 June 2017, and 11 September 2021, physical changes to structures over time were observed. A total of 870 affected structures were detected. Based on the type of change, affected structures were categorized to be damaged, destroyed, demolished, rehabilitated, or reconstructed.²³ However, it is important to note that the actual number of affected structures can differ due to the limitations of the methodology of detecting structural change from satellite images.

Key Findings

The current assessment detected 409 (47%) damaged or destroyed structures and 265 (30.5%) demolished structures. Moreover, 196 (22.5%) detected structures have been rehabilitated or reconstructed²³ indicating efforts of rehabilitation and reconstruction of housing stock and key infrastructures between 2017 and 2021.

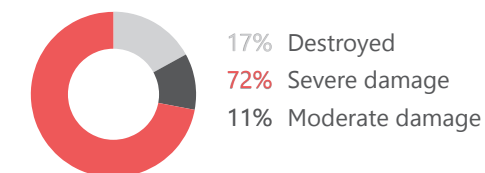
Status of detected structures

of detected affected structures in neighborhoods that were found to be damaged, destroyed, rebuilt, reconstructed, or demolished as of 2021.



Severity of damage

% of the structures observed as having severe damage, moderate damage or being destroyed, out of the structures identified as damaged/ destroyed.



⁸ WHO, 'Syria Crisis: Ar-Raqqa response Donor alert', July 2017

⁹ Population Taskforce, August 2021

¹⁰ MSF, 'Normalcy slowly returning for the inhabitants and displaced of Tabqa', 2 February 2018

¹¹ HNAP, MNM, December 2021

¹² SSWG Site List, December 2021

¹³ REACH, HSOS, December 2021

¹⁴ REACH, 'Informal Sites and Settlement Profile: Ar-Raqqa Governorate, Syria', October 2021.

¹⁵ REACH, HSOS, December 2021

¹⁶ Ibid

¹⁷ NES MAWG, 'Mine Action Activities in NE Syria – Al-Thawrah (Tabqa) City', 31 March 2021

¹⁸ Population Taskforce, August 2021

¹⁹ HNAP, MNM, December 2021

²⁰ REACH, HSOS, December 2021

²¹ Ibid

²² Ibid

²³ See page 4 for visual examples of UNOSAT Rehabilitation Classes

²⁴ Previously damaged or destroyed structure, where the site has been cleared of debris or remains of damaged structure, with no visible effort of reconstruction.



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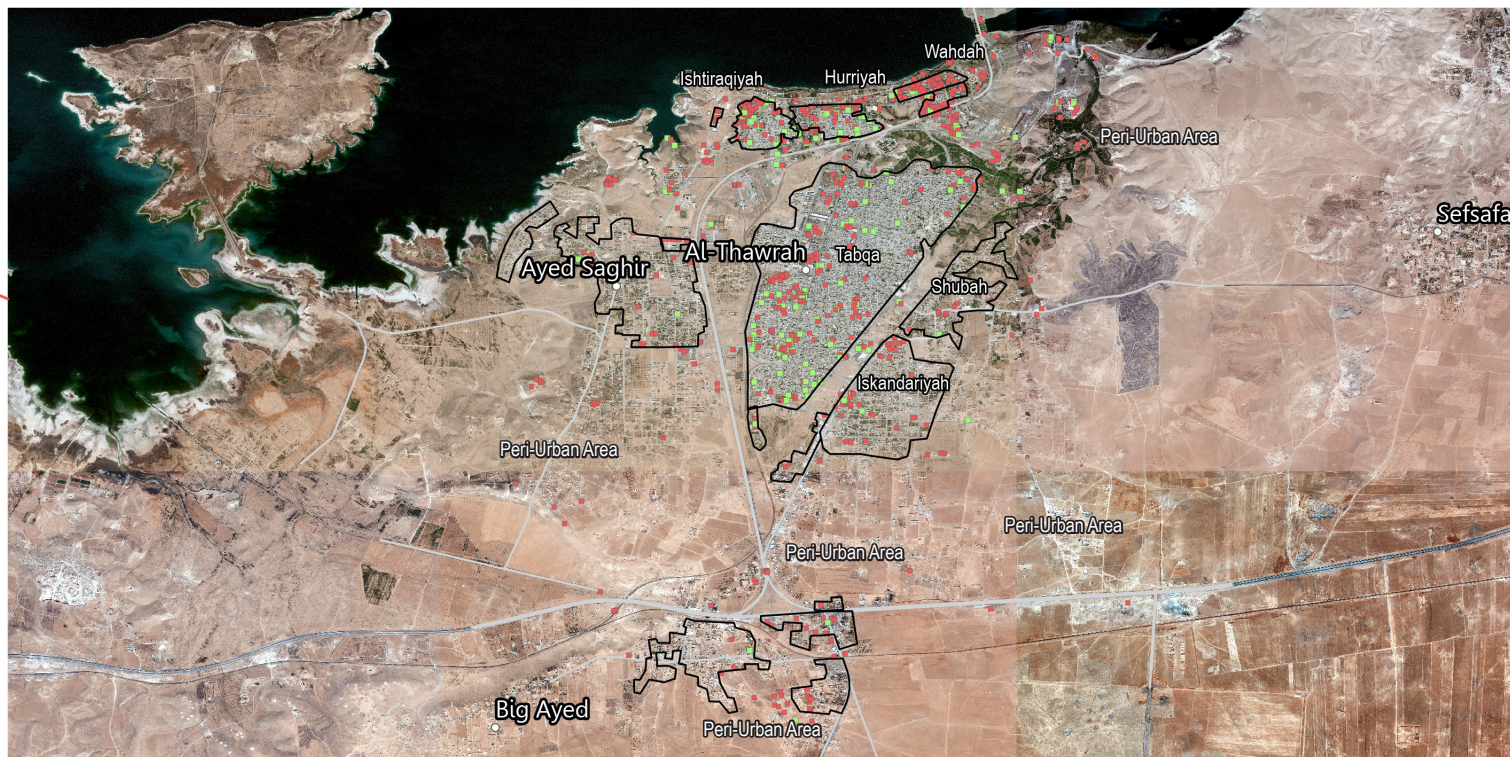
September 2021



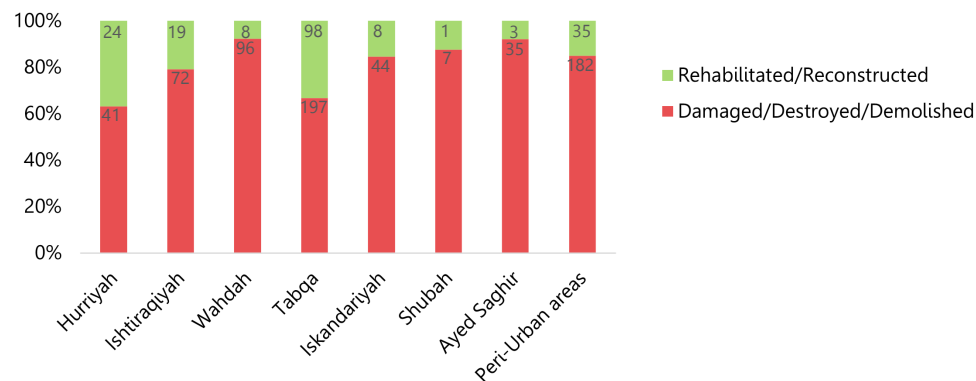
This map illustrates satellite-detected rehabilitated/reconstructed or damaged/demolished structures in the city of Al-Thawrah, Syria compared to previous damage analysis. Using imagery acquired on 11 September 2021, UNITAR-UNOSAT detected a total of 196 rehabilitated/reconstructed buildings.

In particular, efforts of reconstruction and rehabilitation have been undertaken in the area of Tabqa city, where 98 (33%) detected structures have been reconstructed or rehabilitated.

There have also been efforts of reconstruction and rehabilitation in the north of the city in Hurriyah with 24 (37%) detected structures rehabilitated or reconstructed.



and % of detected affected structures in neighborhoods that were found to be rehabilitated/reconstructed, or damaged/destroyed/demolished as of 2021



Data sources:

Satellite imagery: GE1 from 11 September 2021

Copyright: © 2021 DigitalGlobe

Source: OCHA Common Operational Dataset (admin level 3 - sub-district boundaries; admin level 4 - community locations)

Structure damage analysis: UNOSAT

Roads, Neighbourhoods: © OpenStreetMap Contributors

Coordinate system: GCS WGS 1984

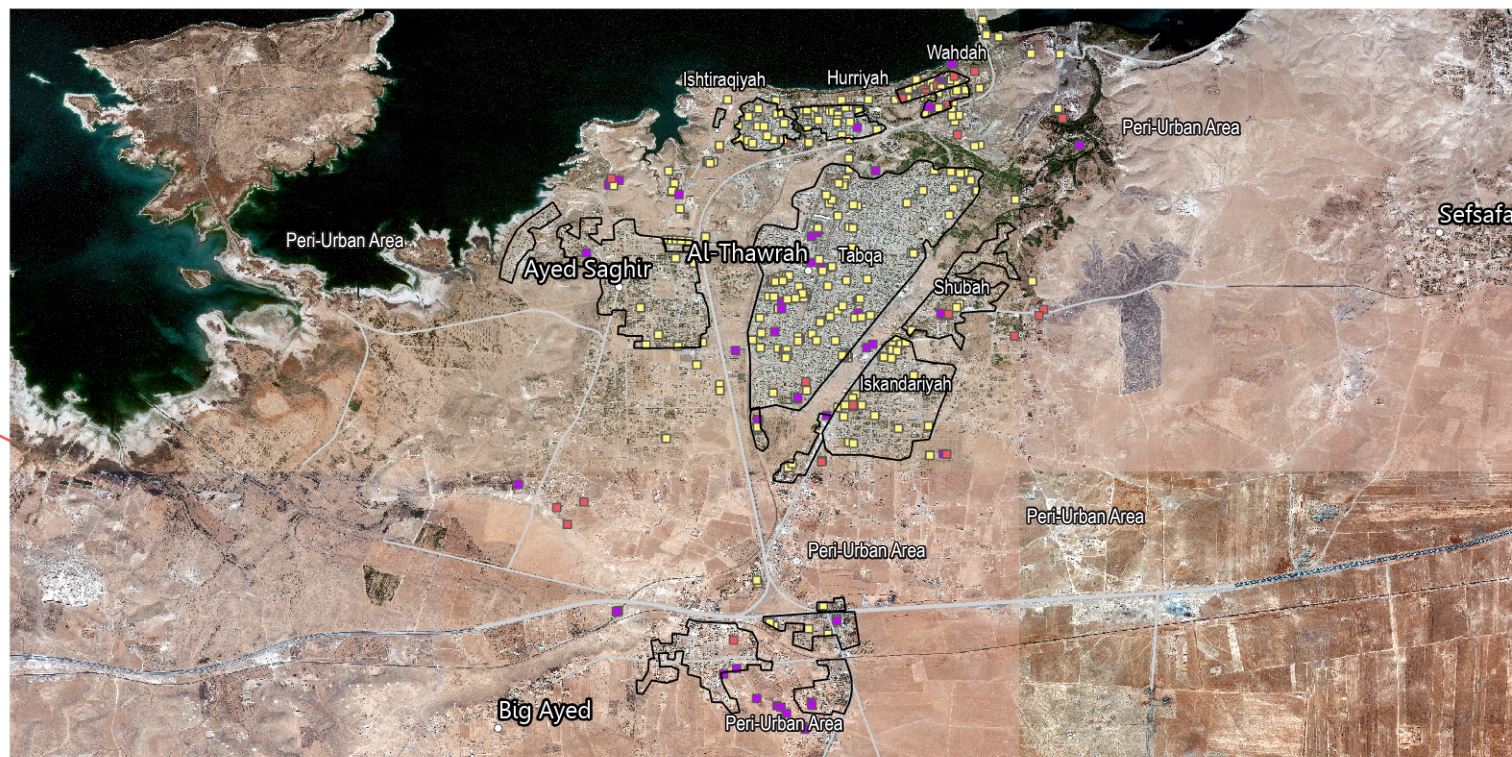
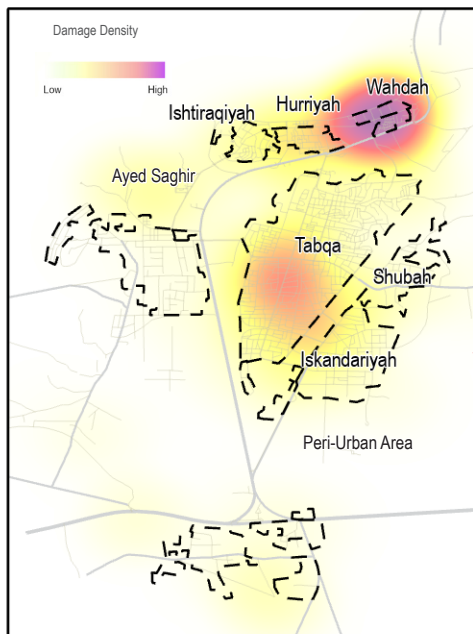
Note: Data, designations and boundaries contained on this map are not warranted to be error-free and do not imply acceptance by the REACH partners, associates, donors mentioned on this map



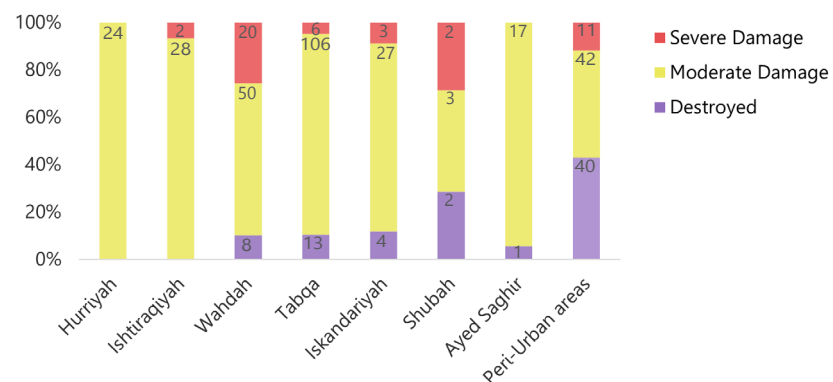
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and % of damaged/destroyed structures in neighbourhoods that were found to have severe damage/moderate damage or be destroyed as of 2021



Data sources:

Satellite imagery: GE1 from 11 September 2021
Copyright: © 2021 DigitalGlobe
Source: OCHA Common Operational Dataset
(admin level 3 - sub-district boundaries; admin level 4 - community locations)

Structure damage analysis: UNOSAT

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This map illustrates the damage severity of satellite-detected damaged/destroyed structures in the city of Al-Thawrah, and damage density, using imagery acquired on 11 September 2021.

Wahdah neighbourhood has the highest damage density, as a result of its proximity to the dam, where the 2017 clashes were most severe. In Wahdah, 96 (92%) detected structures were observed to be damaged, destroyed or demolished. In December 2019, Information Management Unit (IMU) KIs reported that the majority resident population in this neighbourhood was IDPs, who were residing in multi-story buildings, with poor to average living conditions.²⁵

²⁵ IMU 'Ar-Raqqa Governorate Panoramic Report', December 2019



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Status of detected structures by neighborhood

of detected affected structures in neighborhoods that were found to be damaged, destroyed, rebuilt, reconstructed, or demolished as of 2021.

	Damaged/ Destroyed	Demolished	Rehabilitated/ Reconstructed
Hurriyah	24	17	24
Ishtiraqiyah	30	42	19
Wahdah	78	18	8
Tabqa	125	72	98
Iskandariyah	34	10	8
Shubah	7	0	1
Ayed Saghir	18	17	3

Severity of damage by neighborhood

of detected affected structures in neighborhoods that were observed as having moderate damage, severe damage or being destroyed, as of 2021.

	Moderate	Severe	Destroyed
Hurriyah	24	0	0
Ishtiraqiyah	28	2	0
Wahdah	50	20	8
Tabqa	106	6	13
Iskandariyah	27	3	4
Shubah	3	2	2
Ayed Saghir	17	0	1
Peri-Urban areas	42	1	40

UNOSAT Rehabilitation Classes



Demolished structure:

Previously damaged or destroyed structure showing no visible damage. Damaged site has been cleared of debris or remains of damaged building. Moreover, there is no visible effort of reconstruction.

Rehabilitated structure:

Previously damaged structure no longer showing visible damage. The previously damaged structure has been repaired and restored to its original state as observed in imagery before damage.

Reconstructed structure:

Previously damaged structure has been demolished and a new building is constructed at the same location. The construction process can be either ongoing or completed.