

Introduction

A year after conflict ceased in Ar-Raqqa, damage to the city remains widespread. Residents continue to return in large numbers despite the complex safety and security context. Recovery efforts have increased access to basic services including education, water infrastructure, and healthcare. However, challenges persist, that will leave residents particularly vulnerable during the winter season.

REACH has conducted a series of assessments to monitor the humanitarian situation as residents spontaneously return and services resume in the city. This most recent Area-Based Assessment (ABA) in Ar-Raqqa city provides an update to the [June 2018 ABA](#), examining multi-sectoral needs of civilians living in the city and their access to relevant services and infrastructure. The following sectors were assessed (click to access page): [Population, Returns, and Access](#); [Shelter](#); [Protection](#); [Electricity](#); [Health](#); [Education](#); [WASH](#); [Livelihoods](#); [Food and Markets](#), [Nutrition](#); [Bakeries](#); and [Non-food Items \(NFIs\)](#). An [annex](#) also provides an in-depth look into the health situation in Ar-Raqqa city.

The ABA was conducted as part of a wider global initiative aiming to support humanitarian response in urban areas through an area-based approach, in which the humanitarian situation in an area is examined through a territorial, multi-sectoral lens. To support planning and implementation in Ar-Raqqa city, various information management mechanisms are currently under development in partnership with humanitarian actors in northeast Syria.

Key Findings

- **Spontaneous returns are increasing to areas in the central part of the city which were previously scarcely populated**, suggesting these areas are increasingly perceived as habitable.
- Since June 2018, **the most common source of water for residents has shifted from water trucking to accessing water through the increasingly rehabilitated main water network**. The main water network is generally available throughout the city, but the level of access varies in each area.
- **Winterisation non-food items (NFIs) were consistently reported as priority needs for resident households**. Moreover, these urgently needed NFIs were generally reported to be unavailable in over half of all neighbourhoods, suggesting that **residents throughout the city face significant challenges in preparing themselves sufficiently for the upcoming winter**.
- **Livelihoods opportunities remain scarce in the city and half or fewer than half of households in 14 DCUs are able to cover their basic household needs through their income**. The average income is reportedly below 50,000 Syrian pounds (SYP) per month, and child labour remains a common negative coping strategy for residents to deal with insufficient income.
- Despite an increase in the number of available health facilities, which include public healthcare services, **large proportions of households still struggle with accessing required treatment**. Healthcare services suffer from shortages including sufficient personnel, a lack of specialised services such as dialysis treatment, and lack of vital medical supplies such as prosthetics. **Main healthcare needs reportedly include emergency care, provision of assistive devices and limb reconstruction surgery, and treatment for chronic diseases**.

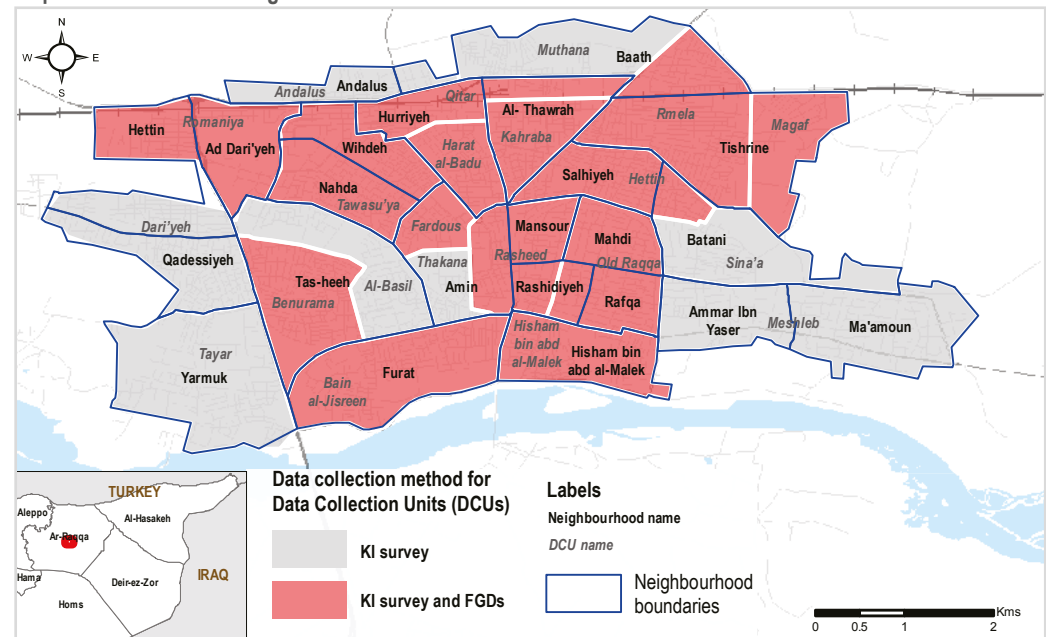
Methodology

REACH conducted data collection for this assessment between 17 September and 14 October 2018 in Ar-Raqqa city. A total of 79 key informants (KIs) were selected based on their knowledge of multi-sectoral needs of the population in each area of the city, with a minimum of three KIs interviewed per data collection unit (DCU). All 22 DCUs in Ar-Raqqa city were covered during data collection.¹ Responding to an information gap, REACH conducted nine additional KI interviews with public health officials and health practitioners working in Ar-Raqqa city to develop a more in-depth understanding of the challenges and shortages faced by the healthcare system. These findings were analysed alongside the findings of previous assessments in order to build a snapshot of access to services at the local level relative to the status and capacity of facilities and infrastructure.

To better understand these dynamics, 16 focus group discussions (FGDs) including participatory mapping exercises were conducted with residents in 14 out of 22 neighbourhoods where access and security conditions permitted data collection. Some neighbourhoods were clustered together and selected based on where the reported needs were highest. FGDs were comprised of 6-10 participants and were segregated by gender, with the exception of Romaniya and Hettin where only male FGDs were held in two rounds due to restricted access to Ar-Raqqa city and a lack of suitable participants.

The indicators and tools used for this assessment were designed in collaboration with humanitarian partners. The findings of this assessment should be considered as indicative only.

Map 1: Assessment coverage²



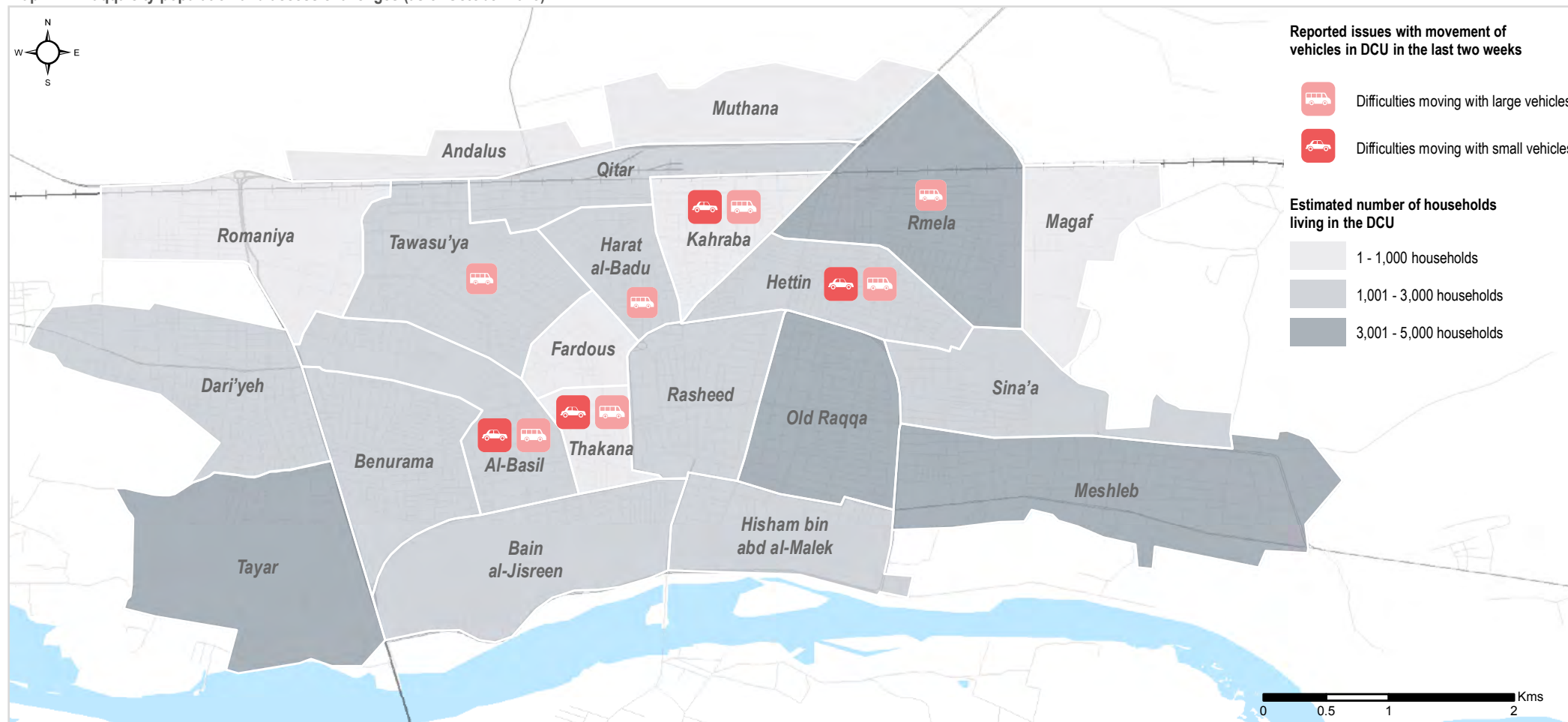
1. Data collection unit boundaries were delineated through participatory mapping with KIs during the June ABA assessment, in order to define the area within which they could most easily report population, services and needs information.

2. Neighbourhood boundaries source: Syria COD, Humanitarian Data Exchange. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by REACH or the United Nations.

Population, Returns and Access

- **Spontaneous return to Ar-Raqqa city continues.** The reported number of households has increased in 14 out of 22 DCUs since the June 2018 assessment, as many households may have tried to return in time for the start of the school year in mid-September.³ **Meshleb, Rmela, Old Raqqa, and Tayar remain key population centres and reportedly host more than 3,000 households who have returned spontaneously.**
- **The greatest reported increases in spontaneous returns have been seen in DCUs in central and some northern locations that previously had a lower level of returns.** These areas have more conflict-related damages but also have greater proximity to services such as markets and healthcare located in the central part of the city.
- **Access and movement in northern areas of the city have improved since the June assessment following the clearing of rubble, but movement within some central areas of the city remains difficult amidst uncleared areas.** KIs noted that movement on foot was limited in Al Basil, Thakana, and Kahraba. Similarly, movement with vehicles of any size remains difficult in these areas as well as in Hettin. In addition, movement with large vehicles is reportedly also difficult in Harat al-Badu, Rmelah, and Tawasu'ya, which may limit the provision of services and goods in these areas.
- The most commonly reported barriers to movement in these central neighbourhoods were rubble and debris blocking roads, as well as broken or damaged roads following destruction of war.

Map 2: Ar-Raqqa city population and access challenges (as of October 2018)⁴



3. IDP Situation Monitoring Initiative (ISMI) indicates a trend of increased returns to Ar-Raqqa, and reports that Ar-Raqqa sub-district is a top intended destination for IDP departures: [REACH, ISMI, August 2018](#)

4. In DCUs without icons, no issues around the movement of vehicles were reported.

Shelter

- The most significant damage to shelters is focused in the central area of the city, as well the northern DCUs of Kahraba, Harat al-Badu and Muthana, where most houses have significant damage and require extensive repairs.⁴ Damage to shelter was reported in all areas with the exception of the outlying neighbourhood of Magaf where no damage was reported by KIs. Most shelters in Al Basil are reportedly destroyed and unable to be repaired.
- Despite the significant damage in the northern and central DCUs, residents continue to face challenges around shelter reconstruction. Out of these areas, reconstruction of damaged or destroyed shelters reportedly took place in Qitar, Muthana, Old Raqqa and Tawasu'ya in the two weeks prior to data collection. In addition, shelter reconstruction was reported to have taken place in Hisham

Bin Abd al-Malek and Meshleb in the two weeks prior to data collection.

- As was noted in the June assessment, the main barrier impeding shelter restoration for residents throughout the city is reportedly the cost of required materials as well as the cost of hiring professional builders.

Most commonly reported shelter types used by population (# of KIs reporting):

| | |
|---------------------------|----|
| Owned homes / apartments | 79 |
| Rented homes / apartments | 67 |
| Unfinished buildings | 25 |

Map 3: Reported extent of shelter damage⁶



Protection

- **Protection issues reportedly persist in Ar-Raqqa as residents spontaneously return to the city.** Although unexploded ordnance (UXOs) contamination is a widespread issue in Ar-Raqqa, mine and UXO contamination was no longer reported by most KIs as a perceived common risk for residents.⁵ The most commonly reported protection issues in DCUs were theft followed by fear of being conscripted into armed service.

Most commonly reported safety/security issues in previous two weeks (# of KIs reporting):

| | |
|------------------------|----|
| Theft | 49 |
| Fear of conscription | 15 |
| Threat from mines/UXOs | 4 |

- **Child protection issues such as children under the age of 16 working remained prominent throughout the city.** Almost all DCUs reported child labour to be common with some exceptions also for uncommon in Andalus, Benurama, and Sina'a where this issue was reported to be very common.
- **Other common child protection issues reported were involvement of children in illegal activities such as theft and drug-related crime, early marriage, and child-headed households** which were all reported to be common in almost half of all DCUs and was not limited to one specific geographic area.
- **Drug abuse among young men including children under 16 years old was an issue that was frequently raised as a key protection concern and perceived cause of criminal activities** in FGDs suggesting that drug abuse is perceived to be a widespread issue in Ar-Raqqa city.

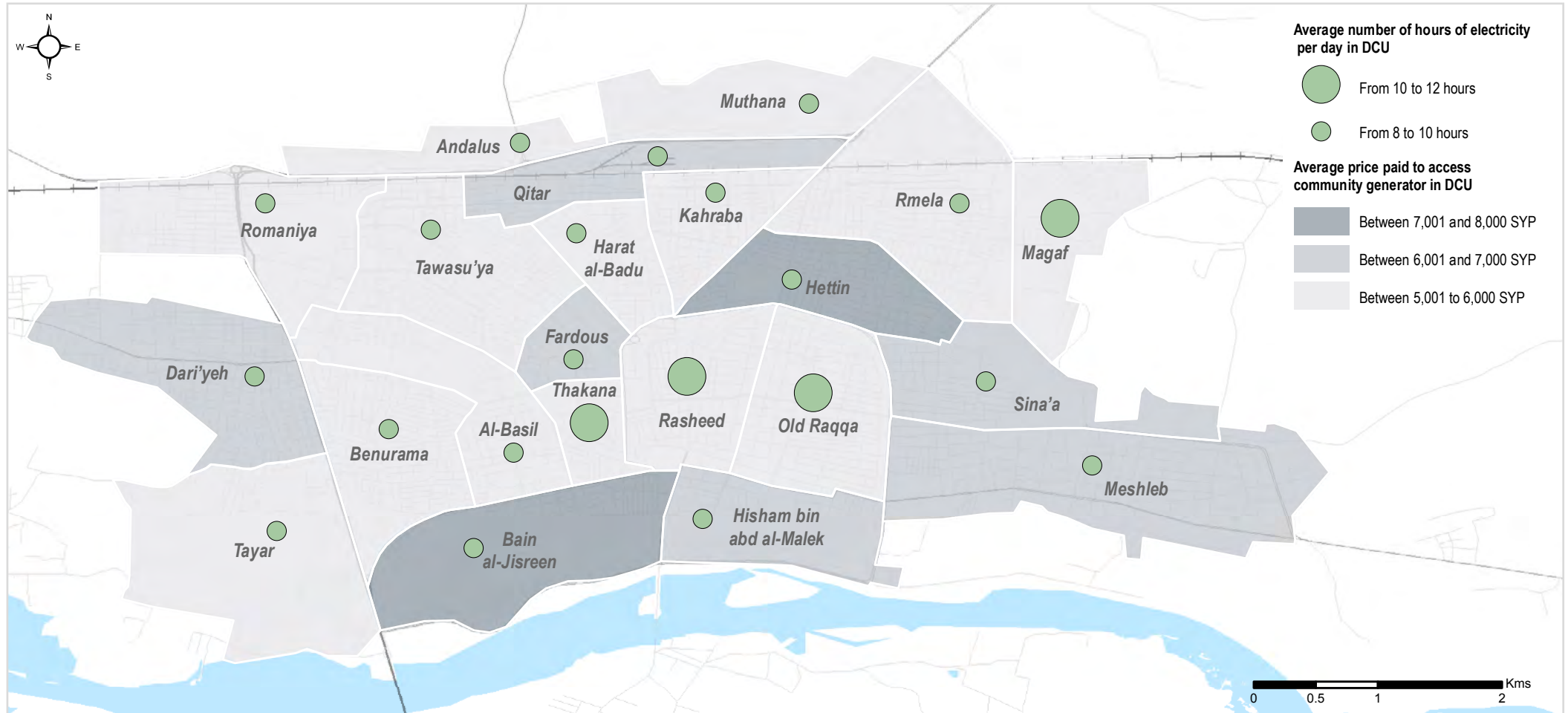
Map 4: Reported prevalence of children under the age of 16 working



⚡ Electricity

- Overall, access to electricity has remained consistent since the June assessment and is available to residents in all neighbourhoods of the city. Residents are able to secure access to electricity for at least 8 hours a day in all DCUs, with four neighbourhoods reportedly enjoying access to electricity between 10 to 12 hours a day on average.
- As was reported in previous assessments, households across the city access electricity primarily through community generators. Batteries, including car batteries, as well as private generators are also reportedly used by residents to access electricity, although less commonly than community generators. The main electricity network reportedly remains unavailable despite efforts by local authorities to restore the network infrastructure.
- Residents throughout the city pay an average usage fee of 6,300 Syrian pounds per month to access community generators. This fee varies slightly in certain areas, with the highest average fee of 7,001 to 8,000 Syrian pounds reported in the DCUs of Bain al Jisreen and Hettin, followed by Hisham Bin Abd al-Malek, Meshleb, Sina'a, Dari'yeh, Fardous and Qitar where an average fee of 6,001 to 7,000 Syrian pounds was reported.
- The lack of electricity reportedly impedes restoration and the provision of services in the city. Lack of sufficient electricity was reported as a barrier to food markets opening in Harat al-Badu and Hisham Bin Abd al-Malek. In addition, insufficient electricity affects other infrastructure in the city; half of all KIs reported that the capacity of healthcare and educational facilities as well as water pumps was reduced as a result of electricity shortages.

Map 5: Reported access to electricity⁸



8. 'Access' refers to the number of hours when residents in each DCU could reportedly access any source of electricity on average each day.

Health

- The restoration and rehabilitation of healthcare facilities in the city continues, and new and rehabilitated healthcare facilities have become available since the June assessment. Health sector KIs reported that two public hospitals, five private hospitals, as well as at least eight public or NGO-run healthcare clinics offering free health services are currently operational in the city. Residents reportedly access healthcare primarily through public and NGO-run health facilities, with key healthcare centres located in Old Raqqa, Meshleb and Fardous.
- The level of access to healthcare has reportedly also improved since June. However, access to healthcare still remains challenging for residents, even in areas with closer proximity to healthcare facilities. In six DCUs, fewer than half of households that required treatment in the

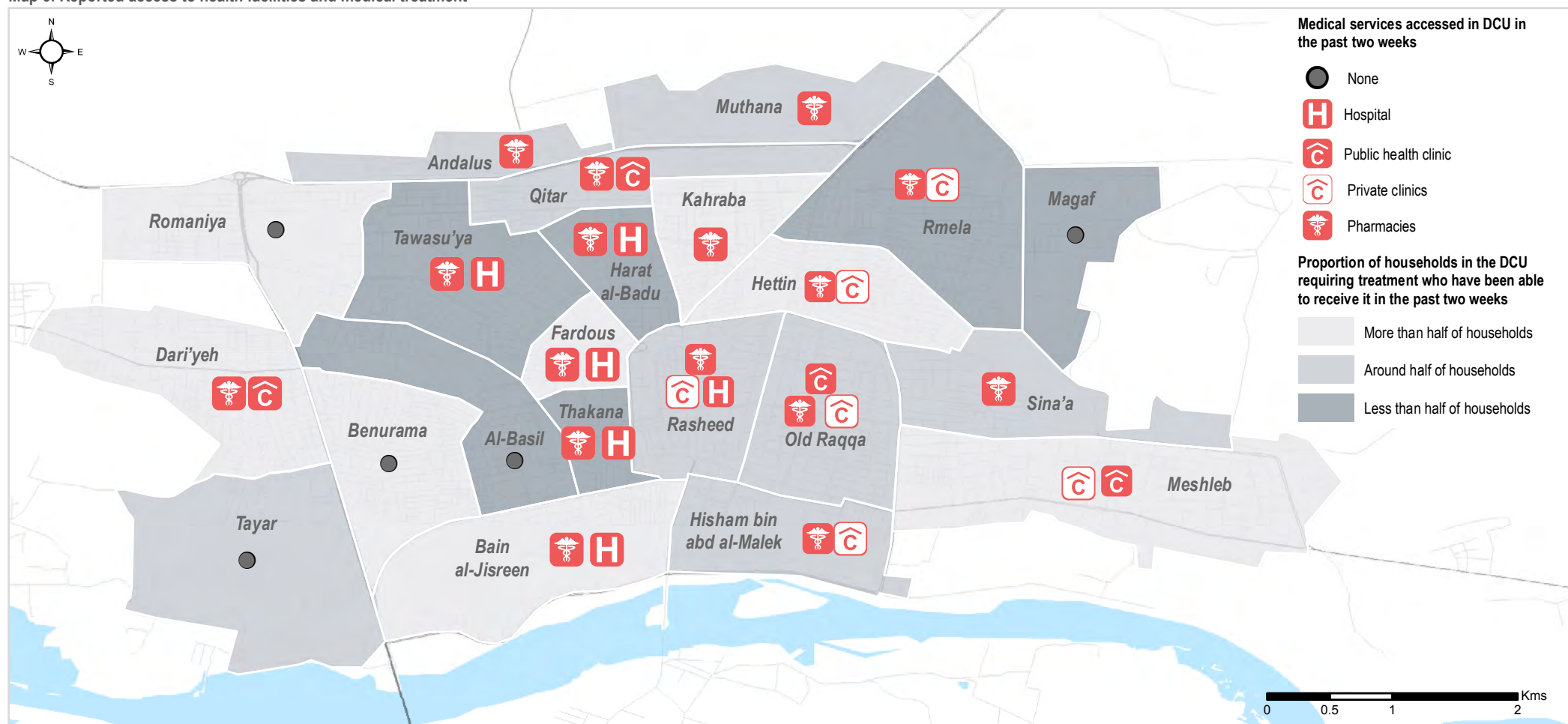
two weeks prior to data collection were reportedly able to receive it. The primary reported barrier to accessing healthcare for residents throughout the city was the cost of healthcare being unaffordable.

Most commonly reported healthcare needs two weeks prior to data collection (# of KIs reporting):

| | |
|---|----|
| Emergency care (accidents and injuries) | 52 |
| Skilled care during childbirth | 46 |
| Treatment for chronic disease | 40 |

- Based on feedback from humanitarian partners and the perceived critical healthcare needs in Ar-Raqqa city, REACH has conducted a [supplementary assessment](#) to better understand the state of healthcare services and infrastructure, as well as the needs of residents in the city.

Map 6: Reported access to health facilities and medical treatment⁹



Education

- The number of functional primary education facilities has reportedly increased since June, and primary schools are currently operating in 19 DCUs. KIs reported that residents were not able to access any primary education facilities in Al Basil, Fardous and Hettin, consequently requiring children to access primary education outside the neighbourhood.
- Additionally, the proportion of children aged 6 to 12 who access primary education services has reportedly increased since the June assessment. In 20 DCUs, at least more than half of all children aged 6 to 12 had access to primary education services in the two weeks prior to data collection. Conversely, in Bain al Jisreen, access to primary education was reportedly limited to around half of children, and Romaniya where less than half of children were accessing primary education.
- Despite this increase in primary education enrollment, intermediary and secondary level education services continue to be extremely limited. KIs indicated intermediary and secondary education was available to either less than half or to only a few children aged 13 to 17 in the majority of neighbourhoods, and to more than half of children in only six neighbourhoods.

Most commonly reported barriers to accessing education in two weeks prior to data collection (# of KIs reporting):

| | |
|--|----|
| Poor condition of schools (poor latrines, electricity) | 45 |
| Safety/security concerns | 23 |
| Distance to schools/lack of transportation | 23 |

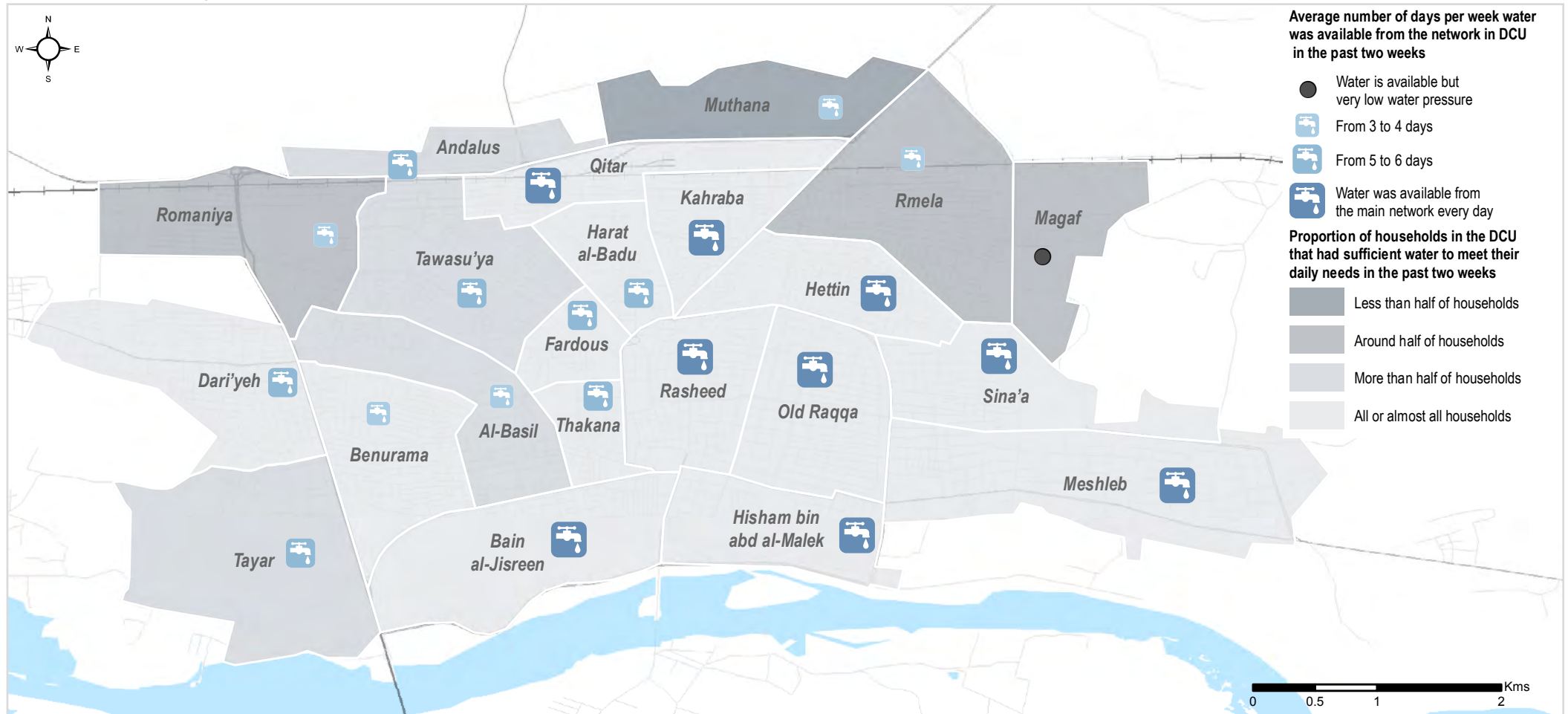
Map 7: Reported functionality of education facilities and access to primary education



- Water is reportedly accessible through the main water network in all areas of the city, with the exception of Magaf where water availability is limited due to low water pressure. Except in Magaf, the main water network was reported to be the primary source of water for all DCUs.¹⁰ This suggests that the water infrastructure has undergone some successful rehabilitation and reconstruction since June, when water trucking was reported as the main source of water for residents throughout the city.
- Despite these efforts to rehabilitate the water network, challenges in accessing sufficient amounts of water persist. KIs reported that residents in the outlying areas of Magaf, Rmelah, Muthanna, and Romaniya face challenges in accessing sufficient water to meet their daily needs, with access to water limited to select days and fewer than eight hours per day.

- Whilst the quantity of water has reportedly improved, water quality issues remain a key concern. KIs in ten DCUs reported that water from the main network has a bad smell, a brown appearance, or people have become sick after consuming it.¹¹
- Garbage collection services have also improved in the city since June, with garbage being collected by local authorities in all but three DCUs. Garbage is reportedly not being collected regularly in Fardous, Magaf, and Tawasu'ya.
- The most commonly reported negative coping strategy used to deal with a lack of water in the two weeks prior to the assessment was to use water stored previously, followed by modifying hygiene practices, and spending money on water that is usually spent on other basic needs.

Map 8: Reported functionality of main water network and access to sufficient water



10. For nine DCUs, water trucking was reported to be a main source for water in addition to the main network.

11. Twenty four KIs reported issues with people becoming sick after consuming water in the DCU, and these issues were reported to be diarrhoea.

Livelihoods

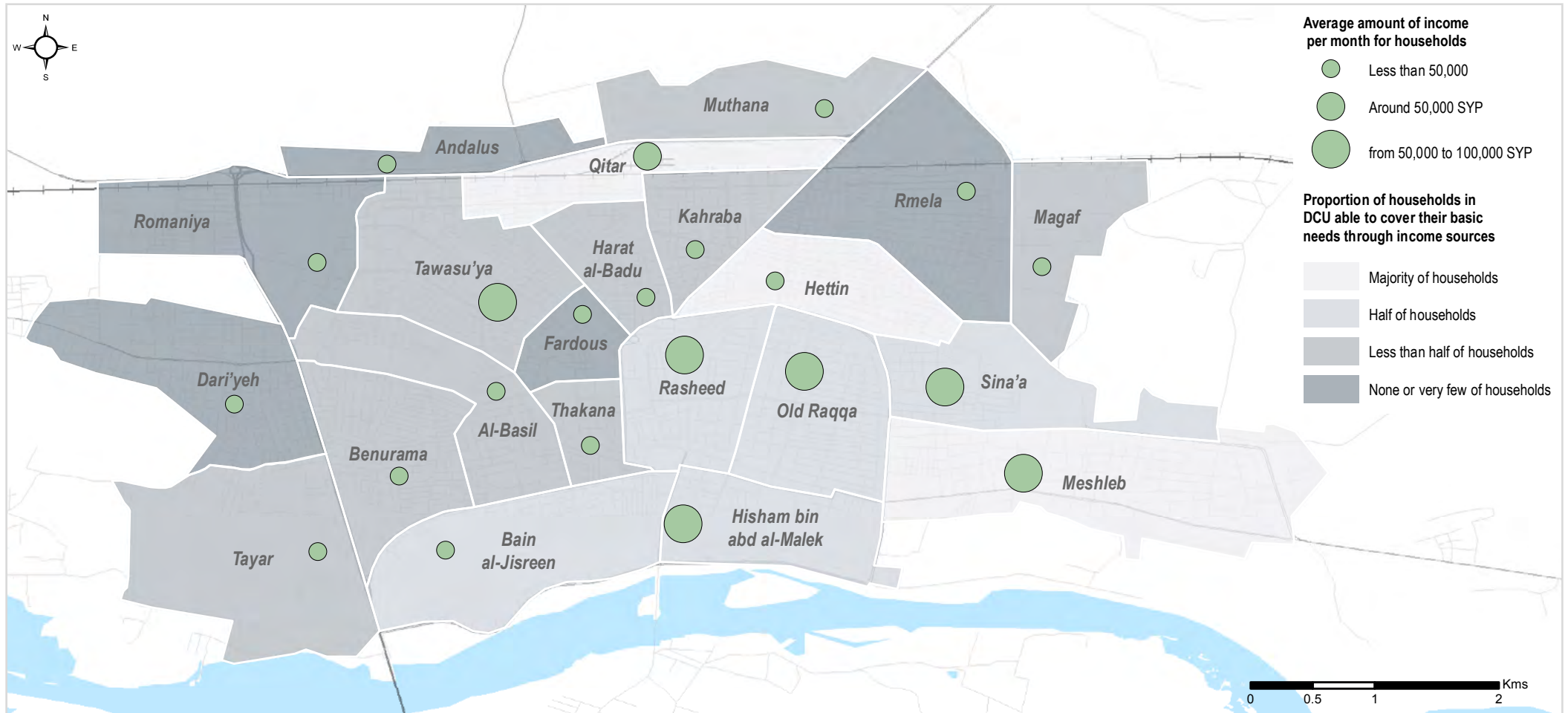
- KIs indicated that residents face significant challenges securing sufficient income to provide for basic household needs in Ar-Raqqa city. KIs in the majority of DCUs reported that the average amount of income per month for households in Ar-Raqqa was below 50,000 Syrian pounds, which is below the reported average of 50,000 to 100,000 Syrian pounds in the wider governorate of Ar-Raqqa.¹²
- Additionally, KIs reported that very low proportions of households in the majority of DCUs were able to sustain themselves and to cover basic household needs through their income, particularly in the neighbourhoods on the periphery of the city. In Rmela, Romaniya, Fardous, Dariyeh and Andalus, few if any households had enough income to cover their basic household needs.

- Unemployment was reported as the primary barrier in accessing livelihoods, followed by the high cost of productive inputs and the high cost of labour. However, in the central DCUs of Tawasu'ya, Rasheed, Fardous and Al Basil, damage to infrastructure was reported to be the primary barrier to livelihoods.

Most commonly reported type of income in DCUs (# of KIs reporting):

| Men | Women |
|--------------------------------|--------------------------------|
| Day labour 72 | Work with local authorities 63 |
| Work with local authorities 39 | Tailoring 54 |
| Trade/shops 35 | Teaching 34 |

Map 9: Reported locations of core food items accessed in previous two weeks



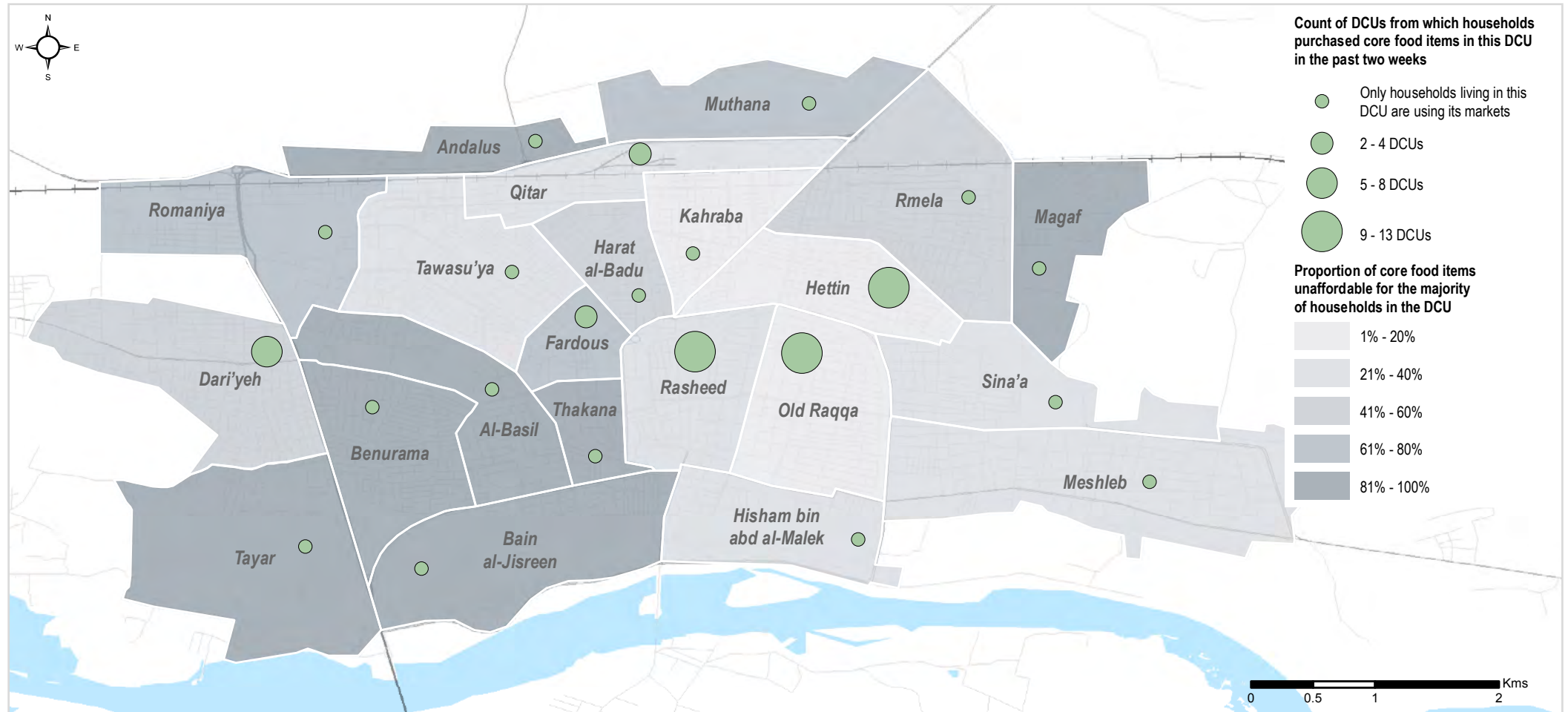
Food and Markets

- With the exception of Romaniya, KIs reported that residents in all DCUs accessed food through markets or shops within the DCU in the two weeks prior to data collection, suggesting markets are largely functional across Ar-Raqqa city. However, residents reportedly frequently travel to other neighbourhoods seeking lower food prices. Markets in Hettin, Old Raqqa and Rasheed were reported to be key markets for purchasing food, as well as markets in Dariyeh which are reportedly also a popular destination for some residents in western DCUs.
- Almost all core food items are reportedly available at least some of the time in most DCUs.¹³ Meat and flour were notable exceptions, which were reported by KIs to be unavailable in Harat al-Badu, Thakana and Romaniya. Additionally, bread and chicken were not available in Thakana and Romaniya.
- Despite being available in food markets across the city, many assessed core food items were reportedly unaffordable for the majority of households in 11 out of the 22 DCUs. KIs reported that almost all core food items were unaffordable for the majority of households in Al Basil, Andalus, Bain al Jisreen, Benurama, Thakana and Tayar. The most common food items to be reported as unaffordable were meat and chicken, as well as tomatoes which are susceptible to seasonal price fluctuations.

Most commonly reported coping strategies for lack of food in previous two weeks (# of KIs reporting):

| | |
|--|----|
| Purchasing food on credit or borrowing money | 55 |
| Reducing meal sizes | 51 |
| Skipping meals | 35 |

Map 10: Reported locations of core food items accessed in previous two weeks



13. In all DCUs, assessed core food items were bread, flour, rice, lentils, sugar, cooking oil, chicken, meat, tomatoes, cucumbers, and onions. For ease of analysis, the questionnaire responses of 'always available' or 'sometimes available' were combined to give a clearer picture of where core food items were accessible or not accessible.

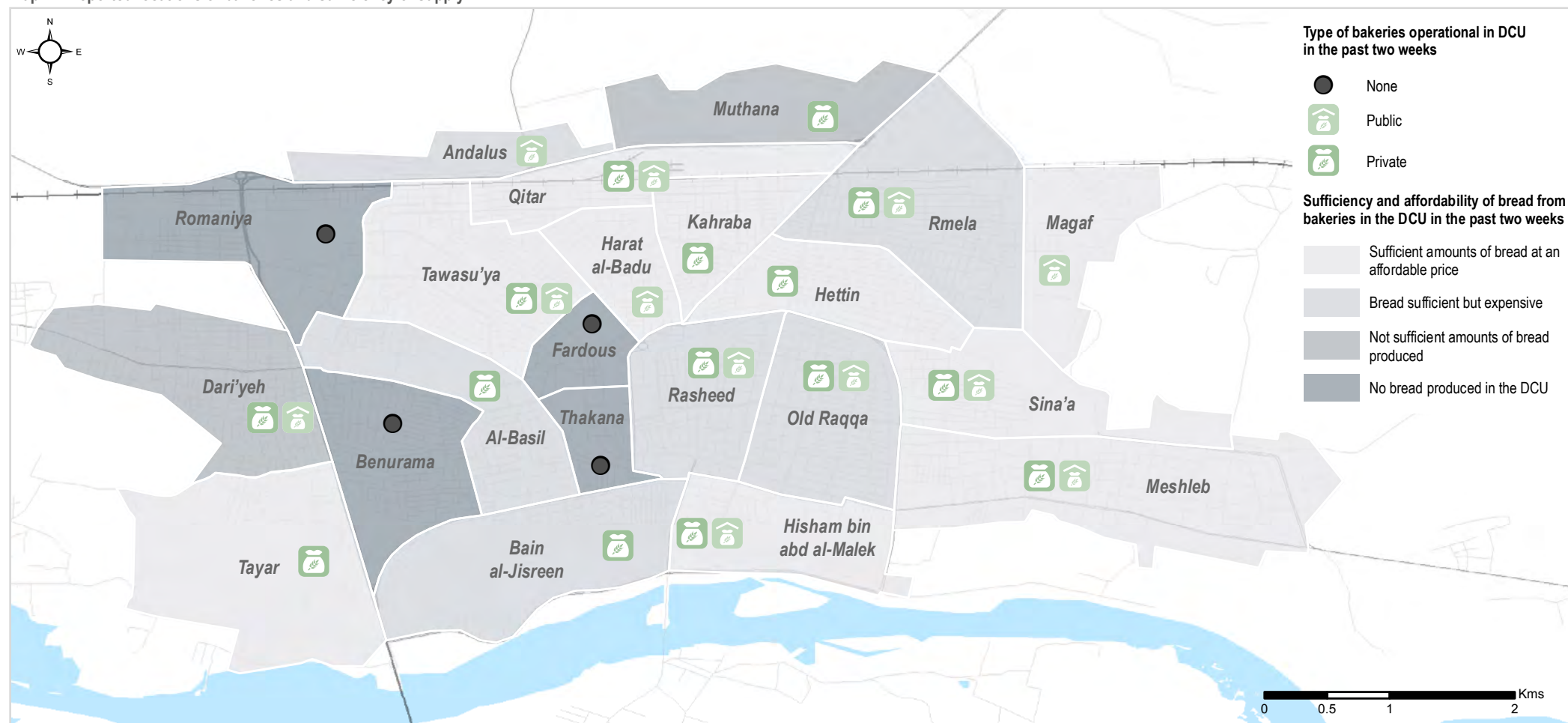
Nutrition

- In almost all DCUs, few if any children under the age of five reportedly displayed signs of malnutrition during the two weeks prior to data collection. However, in Hettin, Meshleb and Romaniya, KIs estimated that between 26-49% of children under five to be displaying symptoms of malnutrition in the two weeks prior to data collection.¹⁴
- Distributions of infant formula were not reported by any KIs throughout the city. However, several focus group participants mentioned receiving occasional nutrition support from a local organisation in Tawasu'ya. Despite this, KIs reported that mothers predominantly seek advice on feeding infants from relatives, and less commonly from physicians or other medical practitioners.

Bakeries

- Bakeries are reportedly functional in almost all DCUs, with the exception of Benurama, Thakana, Fardous and Romaniya where no bakeries are functioning at all.
- The number of bakeries that receive flour support from local authorities has increased since the June assessment. Such bakeries are reportedly now present and operational in at least 12 DCUs.¹⁵
- Despite the increased availability of bakeries with flour support and cheaper prices, KIs reported bread is reportedly still too expensive for many resident households, specifically in Al Basil, Andalus, Bain al Jisreen, Old Raqqa, Rasheed and Rmelah.
- Additionally, KIs indicated that bakeries in Muthanna and Dariyeh were not producing a sufficient amount of bread to provide for the needs of the neighbourhood.

Map 11: Reported locations of bakeries and sufficiency of supply¹⁶



14. These findings may not accurately reflect rates of child malnutrition in these DCUs, as data collection enumerators and KIs did not have the expertise required to precisely diagnose this condition.

15. Public bakeries are those to which local authorities distribute flour for bread production, thereby reducing the cost of bread to customers.

16. Information provided by KIs regarding type of bakeries accessed in the DCU might differ slightly with the information provided by focus group participants in the neighbourhood profiles section. This is due to different perceptions of number and type of bakeries available in certain larger DCUs.

Non-Food Items (NFIs)

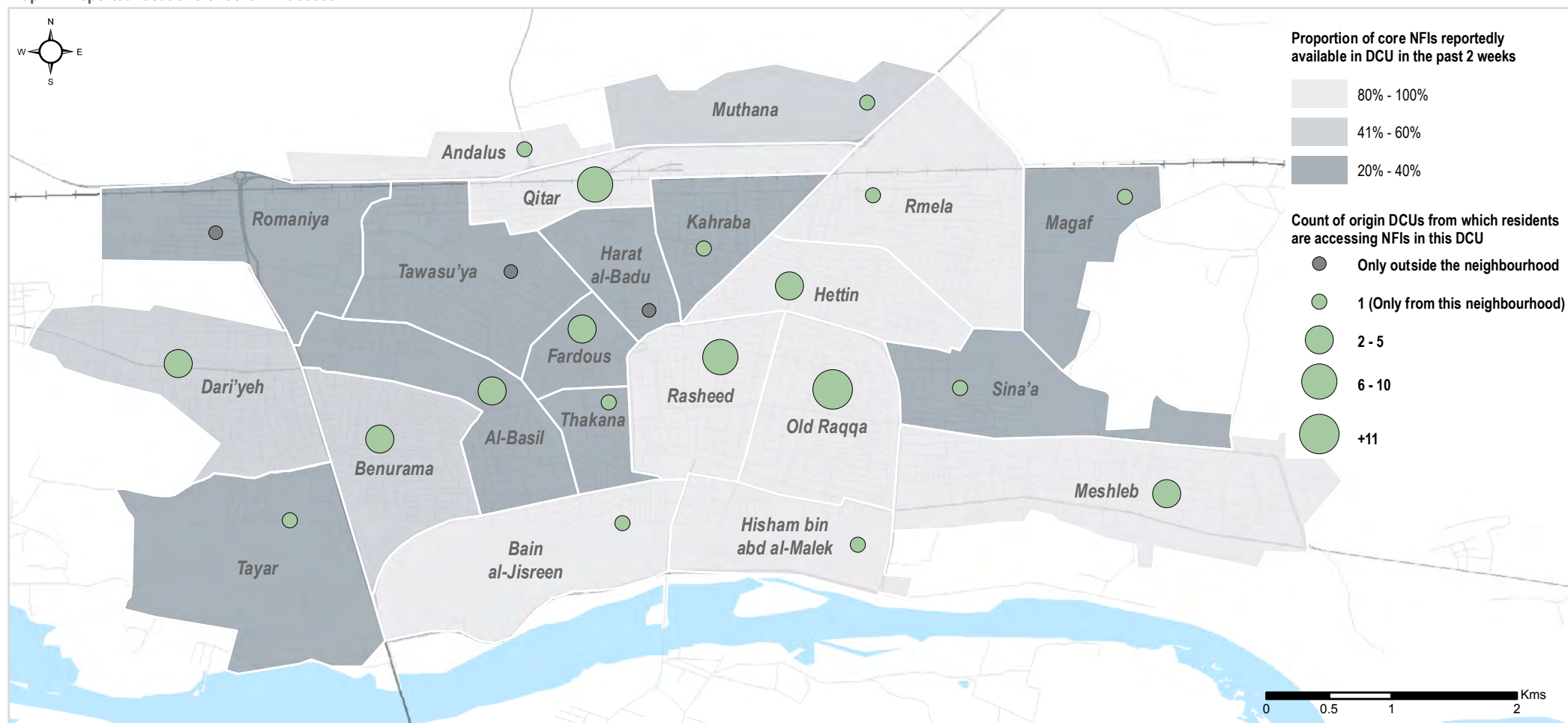
- In all but three DCUs, KIs reported that residents accessed core NFI items through markets or shops within their own neighbourhood; residents in the remaining DCUs accessed NFIs by travelling to Central Raqqa, Qitar or Hettin, and residents in western Ar-Raqqa city also go to Dariyeh to purchase NFIs.¹⁷ For almost all DCUs, markets in Old Raqqa and Rasheed are the most popular destinations for purchasing NFIs.
- The availability of assessed core NFIs varied greatly across DCUs. In nine DCUs, KIs indicated almost all core NFIs were available at least sometimes, while the lowest availability of NFIs was recorded in five DCUs; Harat al-Badu, Magaf, Romaniya, Tawasu'ya and Tayyar.
- Cooking fuel was reported to be always or almost always available in 16 DCUs, while all personal hygiene

items, and household cleaning products were reported to be always or almost always available in the vast majority of DCUs. On the contrary, bedding items, clothing, and most winterisation items were least commonly available for residents.

Table 1: Median price of winterisation NFIs, Ar-Raqqa sub-district and Ar-Raqqa governorate¹⁸

| District | Kerosene, per litre | Winter blankets | Adult winter jackets | Childrens winter jackets | Winter hats | Adult winter boots | Mattresses |
|----------------------------|---------------------|-----------------|----------------------|--------------------------|-------------|--------------------|------------|
| Ar-Raqqa city (SYP) | 125 | 8,000 | 11,000 | 6,875 | 1,250 | 3,500 | 5,500 |
| Ar-Raqqa governorate (SYP) | 125 | 7,500 | 8,000 | 5,625 | 800 | 3,000 | 5,500 |

Map 12: Reported locations of core NFI access



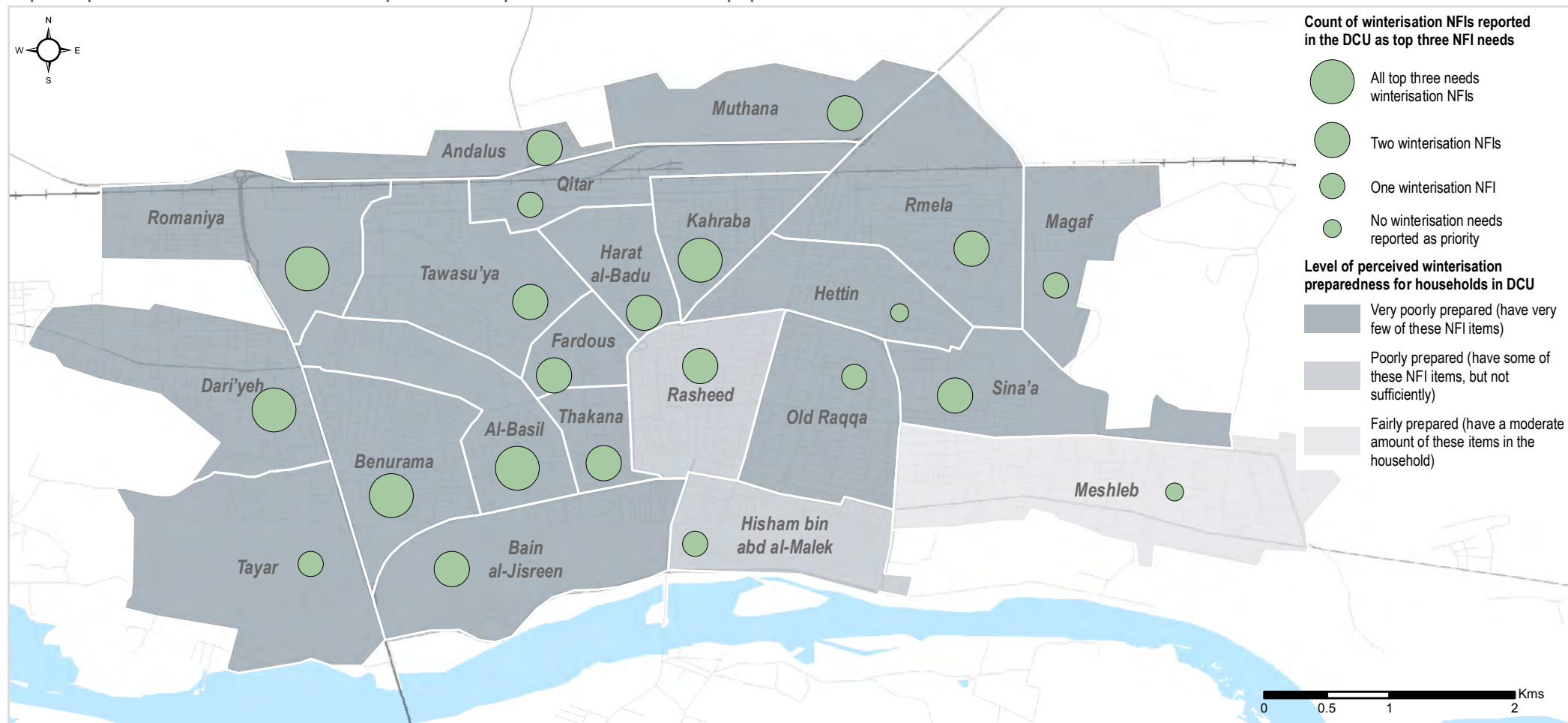
Non-Food Items (NFIs)

- Reported NFI needs have shifted markedly since the June assessment, suggesting that winterisation needs among Ar-Raqqa residents are currently very high. KIs consistently reported NFIs associated with winterisation to be among the top three NFI needs, which indicates that families do not have sufficient NFIs to robustly prepare themselves for the coming winter.¹⁹ KIs in Al Basil, Benurama, Dariyeh, Kahraba and Romaniya, reported only winterisation items as their top three NFI needs. **These winterisation NFI needs reportedly include winter heaters, heating fuel and winter clothes.**
- Because of this perceived lack of sufficient winter NFIs, KIs in all but three DCUs reported that residents are very poorly prepared for the upcoming winter period. Only in Meshleb did KIs report that households were better prepared for the winter months as they possessed more of these items.²⁰

Cash

- As indicated in the June assessment, Hawala services are completely consolidated in a key commercial street running between the DCUs of Old Raqqa and Rasheed.²¹
- Hawala systems in these locations are reportedly functioning well. Despite the presence of a few Hawala agents located in Hisham Bin Abd al-Malek, residents are reportedly mainly accessing Hawala services in Old Raqqa and Rasheed.

Map 13: Reported number of winterisation items as top NFI needs and perceived level of winterisation preparedness



19. For the purpose of this assessment, winterisation NFIs included winter heaters, heating fuel, winter clothes, winter shoes and winter blankets.

20. KIs were asked the rate their own level of preparedness for the upcoming winter in terms of having sufficient appropriate winterisation NFI items (winter heaters, blankets, heating fuel/kerosene, winter clothes).

21. Hawala is a traditional system of transferring money whereby money is paid to an agent who then instructs an associate in the relevant country or area to pay the final recipient

Neighbourhood Profile

Hettin, Ar-Raqqa City

Estimated population: 2,466 - 2,800 households

Population breakdown:

| 0-5 | 6-18 | 19-59 | 60+ |
|-----|------|-------|-----|
| 32% | 32% | 28% | 8% |

Overview: Hettin is primarily a residential area. Despite physical damage to the area, a large food market is consolidated in the Western corner of the neighbourhood.

Reported priority needs: health, education, electricity

Education

- KIs reported that the neighbourhood hosts an education complex containing six schools, all of which are destroyed and/or non-functional.
- Primary school children reportedly travel to Rmela or Old Raqqa for school, while some families with children at the intermediate and secondary school levels come together to hire private education services.

Healthcare

- The one public clinic in the neighbourhood reportedly cannot function due to theft of its medical equipment and supplies.
- According to KIs, private clinics are available in the neighbourhood, but they are largely unaffordable. Many residents go to Meshleb, Thakana and Old Raqqa to access healthcare facilities.

WASH

- Water is available through the main public network. However, prior to consuming the water, residents reportedly need to leave it running for 2-3 minutes until its odour and brown colour disappear. Residents reported that the water sometimes causes sickness such as diarrhoea.
- Garbage collection takes place daily in the main streets, and less frequently in the neighbourhood's side streets.

Bakeries

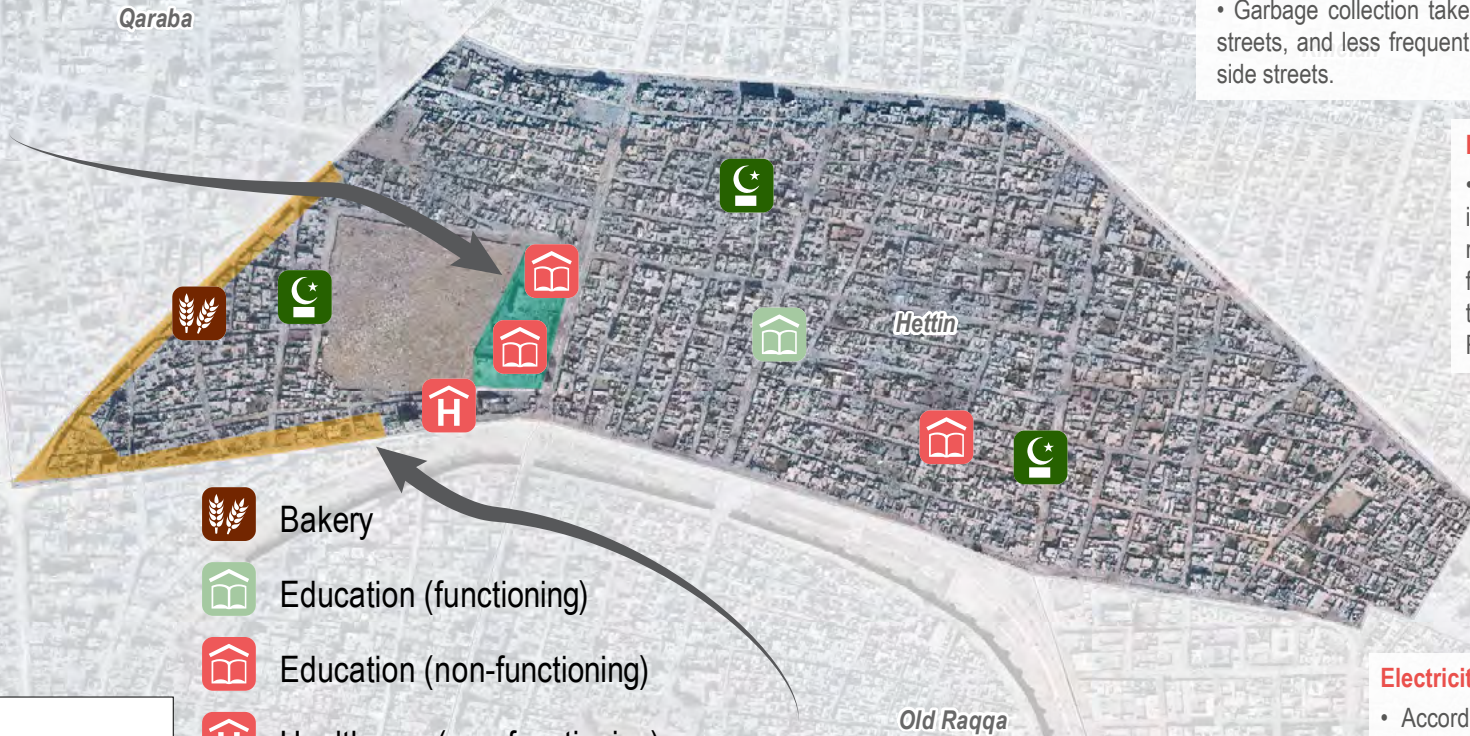
- There are only private bakeries in the neighbourhood, which are reportedly largely unaffordable for the majority of families, who travel to Rmela, Old Raqqa or Rasheed seeking cheaper prices.

Electricity

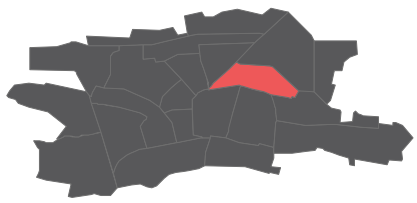
- According to KIs, electricity is available through community generators. However, many residents reportedly struggle to afford the fee of 600 SYP per ampere.

Markets

- Hettin is the location for the city's primary food market bringing residents from all over the city for its variety of food items. For NFIs, most residents reportedly go to Old Raqqa or Rasheed.



-  Bakery
-  Education (functioning)
-  Education (non-functioning)
-  Healthcare (non-functioning)
-  Mosque
-  Education
-  Market area



0 100 200 Meters

Neighbourhood Profile

Rmelah & Magaf, Ar-Raqqa City

Estimated population: 4,091 - 5,650 households

Population breakdown:

| 0-5 | 6-18 | 19-59 | 60+ |
|-----|------|-------|-----|
| 29% | 33% | 25% | 13% |

Overview: Rmela and Magaf were some of the first neighbourhoods to see spontaneous returns, and together these two neighbourhoods are some of the most populated in the city.²²

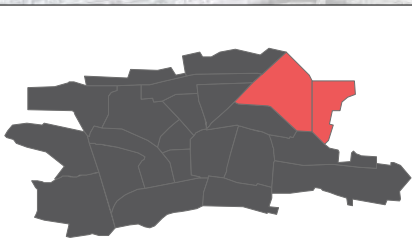
Reported priority needs: education, healthcare, water

Nutrition

• Due to a lack of access to sufficiently nutritious food, some mothers are unable to breastfeed infant children. Many also cannot afford milk powder. As an alternative, they reportedly feed tea mixed with bread, yoghurt, or crushed rice to children under 2 years old.²³

Markets

• There is one main street with functional markets selling food and basic NFIs in Rmela, and smaller shops spread throughout side streets.



-  Bakery
-  Education (functioning)
-  Education (non-functioning)
-  Mosque
-  Area without access to water
-  Market area

WASH

- Water is generally accessible through the public water network in both neighbourhoods except for the northern part of Rmela, which reportedly has no access. Residents here access water through private water trucking.
- Water from the main water network in Magaf is reportedly not always available due to low water pressure.

Health

- Residents reportedly access public medical services in Meshleb, Thakana, Old Raqqa and Rasheed, although travel costs and crowded facilities are major barriers to accessing healthcare.
- Only three private clinics within the neighbourhoods offer dental care and specialised services for women and children, all of which are reportedly prohibitively expensive.

Protection

- People are reportedly afraid of leaving their homes during the night due to problems related to theft and drugs.
- Following reported incidents where so-called Islamic State of Iraq and the Levant (ISIL) supporters had targeted local council workers, women working in the local council were reportedly afraid and consequently limited their movement in and around the neighbourhood during the day and at night.

Education

- There are four functioning and two non-functioning primary schools (for children 6 - 12) in Rmela and Magaf.
- Children at intermediary and secondary level struggle to access education due to a lack of facilities. Those who can afford it use private education services.
- Schools are reportedly inaccessible to residents in parts of the neighbourhood due to the long distances from their areas of residence.
- All schools reportedly lack teaching materials, desks, chairs, windows, doors, and adequate WASH facilities.

Meters
0 110 220

Neighbourhood Profile

Romaniyeh, Ar-Raqqa City

Estimated population: 933 - 1,033 households

Population breakdown:

| 0-5 | 6-18 | 19-59 | 60+ |
|-----|------|-------|-----|
| 23% | 33% | 32% | 12% |

Overview: Romaniya is a neighbourhood on the periphery of Raqqa city, where many families work in agriculture. Services are reportedly limited, requiring residents to travel to other areas of the city. For many, this is difficult because of the associated transportation costs.

Reported priority needs: health, education, food

Markets

- Markets in the neighbourhood are limited to small stores; residents commonly travel to Tayar to buy food or Old Raqqa for NFIs.

Bakeries

- There are no bakeries in the neighbourhood. Residents reportedly buy bread in Tayar instead.
- Sometimes a bread merchant visits the neighbourhood, but this service is reportedly insufficient for residents.

WASH

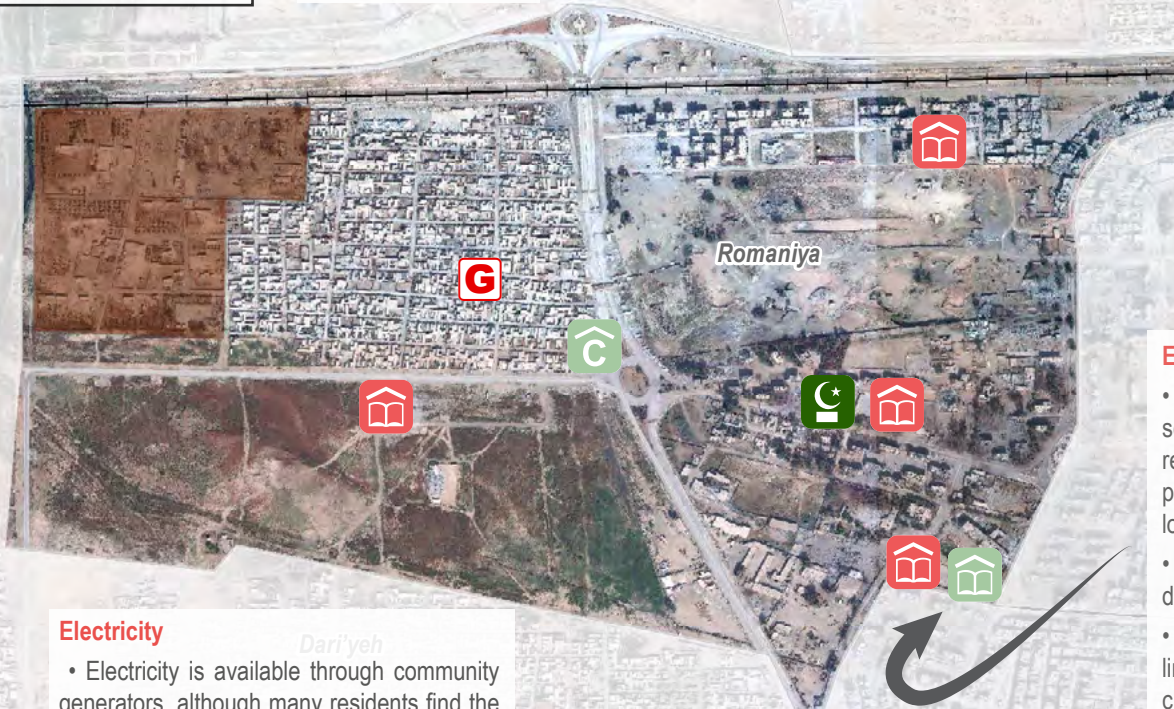
- Water from the public network is available. Reportedly, the use of chlorination is limited and residents have become sick after consuming water.
- Garbage is collected three times a week, which is insufficient for residents' needs. Consequently, garbage is accumulating in open areas in the neighbourhood, where residents are burning some of it, drawing in rats and other pests.

Protection

- Residents reported that a community group had been clearing the neighbourhood of mines, and as such they were no longer afraid of mine contamination.²³
- People rarely leave their houses at night due to a perceived problem with drug abuse among young people, which reportedly leads to burglary of houses.

Health

- Access to healthcare is very poor for residents with large distances and high costs associated with transportation, services and medicine.
- Other than a private dentist, there are no healthcare services available in Romaniya.



Education

- There are no functioning schools in the neighbourhood, but residents are reportedly using a private building as an alternative location for primary education.
- Four schools are out of service due to extensive material damage.
- Access to education is very limited, and there are some children that have not attended school for up to six years. Access to intermediary and secondary level education is particularly limited.

Electricity

- Electricity is available through community generators, although many residents find the cost prohibitively expensive.



Education (functioning)



Private clinic



Education (non-functioning)



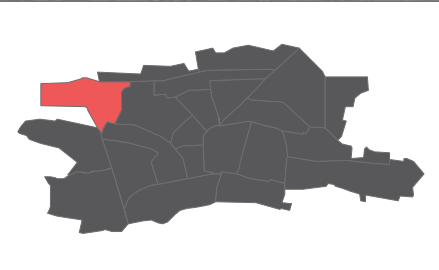
Mosque



Community generator



Unoccupied area



Benurama

Meters
0 100 200

Neighbourhood Profile

Hisham Ibn Abd al Malek, Ar-Raqqa City

Estimated population: 2,800 - 3,100 households

Population breakdown:

| 0-5 | 6-18 | 19-59 | 60+ |
|-----|------|-------|-----|
| 27% | 32% | 32% | 9% |

Overview: Hisham Ibn Abd al Malek is a large neighbourhood situated along the Euphrates. The proximity to central Raqqa and the neighbourhood of Meshleb allows residents to access services here with fewer challenges compared to residents elsewhere in the city.

Reported priority needs: health, education, food

Healthcare

- There are reportedly no healthcare facilities in the neighbourhood except for several pharmacies located in the northern section of the neighbourhood.
- KIs reported that residents live close to healthcare facilities in Meshleb and Old Raqqa and access healthcare primarily in these neighbourhoods.

Education

- KIs reported that there are two primary schools in the neighbourhood, one of which offers the first two years of intermediary level education. In addition, there are two non-functional primary schools with extensive structural damage.
- Schools reportedly suffer from a lack of materials, desks, tables and sufficiently qualified teachers.
- Children living farther away from the schools reportedly have limited access due to parents being afraid to send them to school on foot.

Electricity

- Electricity is reportedly available through community generators.
- KIs reported that the poorest residents can not afford to pay the generator fee (5-600 SYP per ampere) and that some live without electricity.

Protection

- Residents reported drug and alcohol abuse amongst youth, which often leads to harassment against women and violence during the night.
- As such, people are afraid of leaving their houses at night.

Bain al-lisreen

Bakeries

- Four public and private bakeries are reportedly spread throughout the neighbourhood. The bread offered at the public bakeries is generally available and affordable.

Markets

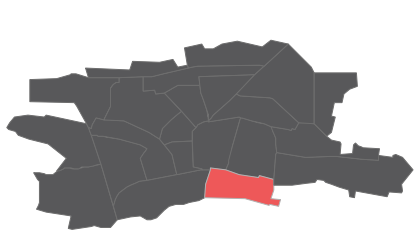
- Markets are consolidated along the northern section of the neighbourhood, but with limited goods available such as basic NFIs and food items.



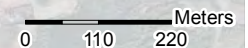
WASH

- Two water pumps for the main water network serve the eastern part of the city.
- Garbage trucks collect garbage almost daily, however this is reportedly still insufficient.
- Residents dump garbage in open areas and burn it in big piles, which has reportedly led to a prevalence of rats in this area.

Large fruit and vegetable market bringing residents from across the city



- Bakery
- Mosque
- Education (functioning)
- Education (non-functioning)
- University (non-functioning)
- Water pump
- Community generator
- Market area



Neighbourhood Profile

Tawasu'ya & Fardous, Ar-Raqqa City

Estimated population: 2,150 - 2,610 households

Population breakdown:

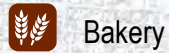
| 0-5 | 6-18 | 19-59 | 60+ |
|-----|------|-------|-----|
| 26% | 31% | 34% | 9% |

Overview: Despite suffering significant physical damage, this area is well-populated and it is common for homes to host multiple families. Services exist despite damage, though widespread gaps remain.

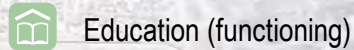
Reported priority needs: health, education, livelihoods.

Nutrition

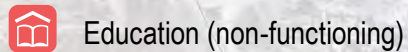
• Some families receive nutrition support from a local NGO in Tawasu'ya that distributes peanut butter as a form of infant support.



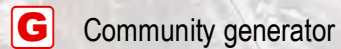
Bakery



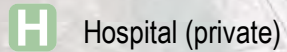
Education (functioning)



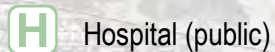
Education (non-functioning)



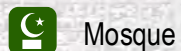
Community generator



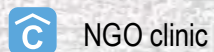
Hospital (private)



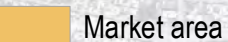
Hospital (public)



Mosque



NGO clinic



Market area

Markets

• There are no major markets in Fardous, only small shops selling basic foods.
• Food and some basic NFIs are available in the market area in Tawasu'ya, though residents prefer to travel to cheaper markets outside the neighbourhood.

Education

• In Tawasu'ya, four schools are reportedly functioning, two schools are out-of-service, and one is destroyed. One of the functioning schools is providing some classes up to ninth grade. In addition, there is a private institute offering intermediary and secondary level education, though at prohibitively expensive costs.
• All schools are reportedly unable to support the number of children in the area and have shortages of school material, lack doors, windows and proper sanitation facilities.

Health

• There is one functional private hospital, one public hospital offering maternal and pediatric services, as well as an NGO-operated healthcare clinic in the neighbourhoods.
• The high cost of private healthcare services, as well as the lack of specialised services in the already crowded public facilities reportedly inhibits residents from accessing these services.

WASH

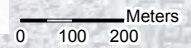
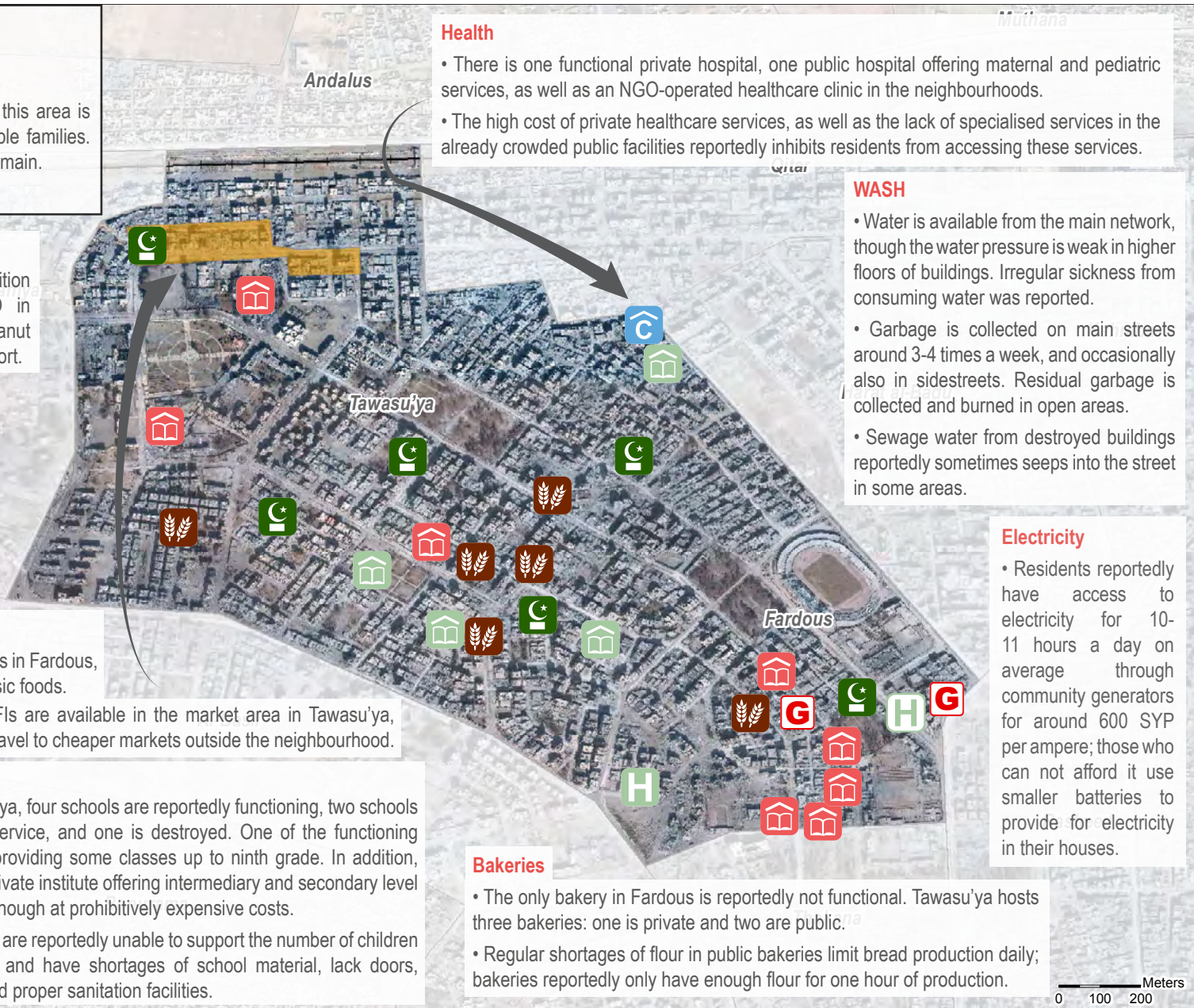
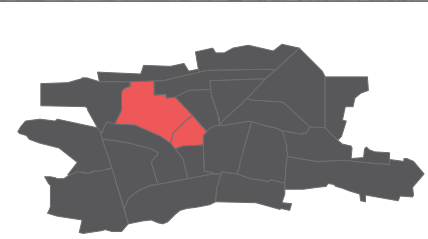
• Water is available from the main network, though the water pressure is weak in higher floors of buildings. Irregular sickness from consuming water was reported.
• Garbage is collected on main streets around 3-4 times a week, and occasionally also in sidestreets. Residual garbage is collected and burned in open areas.
• Sewage water from destroyed buildings reportedly sometimes seeps into the street in some areas.

Electricity

• Residents reportedly have access to electricity for 10-11 hours a day on average through community generators for around 600 SYP per ampere; those who can not afford it use smaller batteries to provide for electricity in their houses.

Bakeries

• The only bakery in Fardous is reportedly not functional. Tawasu'ya hosts three bakeries: one is private and two are public.
• Regular shortages of flour in public bakeries limit bread production daily; bakeries reportedly only have enough flour for one hour of production.



Neighbourhood Profile

Benurama, Ar-Raqqa City

Estimated population: 1,500 - 1,800 households

Population breakdown:

| 0-5 | 6-18 | 19-59 | 60+ |
|-----|------|-------|-----|
| 23% | 27% | 38% | 12% |

Overview: Benurama is a populated and residential neighbourhood with large distances between existing services as well as high rates of poverty. There are few services available in the neighbourhood and residents often need to travel to access services elsewhere.

Reported priority needs: education, healthcare, water/electricity

Nutrition

• Due to poor nutrition, women reportedly struggle with breastfeeding, and some feed children up to two years of age with milk powder, tea with bread, yoghurt or crushed rice as a supplement.

Protection

• Women reported having restricted freedom of movement due to perceived issues of theft, sexual harassment, and drug abuse among young men.

Education

• There is reportedly only one functional primary school in the neighbourhood, which is unable to support the number of children in the area.

• The distance to additional schools in Furat or Dariyeh is large, and many parents are apprehensive about their children walking there. Consequently, some children reportedly do not attend school.

Health

• The public medical facility is reportedly damaged and not functioning. There are no other functioning health facilities; those who can afford it go to Tayar, Thakana or Meshleb.

• Distances and transportation costs are primary barriers to accessing healthcare.

Bakeries

• There are reportedly no bakeries in the neighbourhood, which is a major challenge for residents, who go to Dariyeh and Tayar seeking bread.

• Residents in the eastern part of the area face additional challenges accessing transportation in order to obtain bread.

Electricity

• Community generators are spread throughout the neighbourhood, although some of the poorer residents struggle to afford the weekly fee and accumulate debt to ensure that they receive electricity.

Markets


• The market along Al Jisrah street reportedly sells basic food items, though many residents prefer to go to Rasheed, Hettin and Old Raqqa for cheaper prices.


• Residents in the eastern part of the neighbourhood reportedly face challenges accessing this market due to the large distance and associated travel costs.


WASH


• There is reportedly one destroyed water tower in the neighbourhood. However, KIs reported that water from the main public network is available. Water pressure is occasionally weak which reportedly affects the supply of water.


• Garbage is collected in the neighbourhood for a weekly fee of 200 SYP, but collection reportedly remains insufficient. Residents burn garbage as an alternative disposal method.


 Education (functioning)

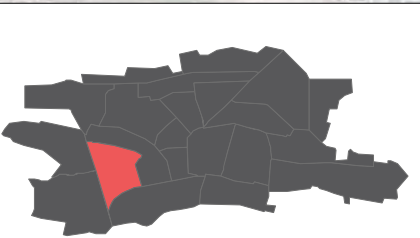
 Community generator

 Public health clinic (non-functioning)

 Mosque

 Water tower (destroyed)

 Market area



Neighbourhood Profile

Bain al Jisreen, Ar-Raqqa City

Estimated population: 2,670 - 3,500 households

Population breakdown:

| | 0-5 | 6-18 | 19-59 | 60+ |
|-----------------|-----|------|-------|-----|
| <i>Dari'yeh</i> | 35% | 22% | 30% | 13% |

Overview: Bain Al Jisreen is a large and populated neighbourhood where access to services is limited in certain parts of the neighbourhood. Though very overcrowded, the school in the neighbourhood is an important hub for education in the immediate area.

Reported priority needs: education, healthcare, followed by water, electricity

Protection

- Reportedly, school-aged children were kidnapped in the neighbourhood some time ago, making many families apprehensive about walking around the neighbourhood at night, as well as sending their children to school.
- Harassment of women in the street is associated with drug abuse among men and boys between 13 to 25 years old.

WASH

- Water is available from the main network but residents reported that the water is coloured brown and is contaminated with soil for the first 1-2 minutes after the tap is opened.
- Despite garbage being collected most days, residents burn uncollected garbage in open areas drawing rats and insects.

Health

- There is one private hospital operating in the neighbourhood, which is prohibitively expensive for residents. Except for pharmacies, no other medical facilities are available in Bain al Jisreen.
- Distances to public health facilities outside the neighbourhood are a major challenge for residents who reported a particular need for neonatal and maternal healthcare services.

Electricity

- Electricity is available through community generators, though many poorer residents struggle with paying the fee of 600 SYP per ampere.

Bakeries

- The three public bakeries in the neighbourhood are all non-functioning. Residents go to Dariyeh, Tayar and Hisham Ibn Abd al Malek to buy bread.

Markets

- There are only small stores in the neighbourhood and residents commonly travel elsewhere to buy food and NFIs.

Education

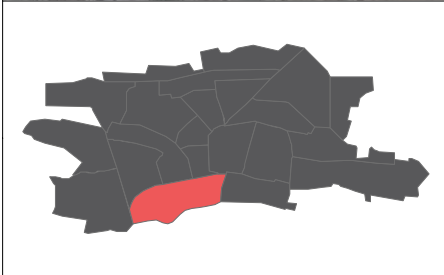
- One functioning school in the neighbourhood reportedly provides primary, intermediary and secondary-level education.
- The school is reportedly very crowded as residents from other areas also attend, and is therefore unable to serve all children in the neighbourhood.
- Residents reported that some children from the western side of the neighbourhood do not attend school, due to fears that they may be harmed during the long walk.

Nutrition

- Some women are unable to breastfeed due to poor nutrition, and consequently feed children tea mixed with bread, yoghurt or crushed rice.

| | | | | | |
|--|-----------------------------|--|--------------------|--|--|
| | Bakery | | Generator | | Suspected area of mine / UXO contamination |
| | Education (functioning) | | Hospital (private) | | Unoccupied area / unfinished buildings |
| | Education (non-functioning) | | Mosque | | |

0 150 300 Meters



Neighbourhood Profile

Old Raqqa & Rasheed Ar-Raqqa City

Estimated population: 4,000 - 6,300 households

Population breakdown:

| 0-5 | 6-18 | 19-59 | 60+ |
|-----|------|-------|-----|
| 24% | 33% | 39% | 5% |

Overview: The center of Ar-Raqqa city is comprised of the neighbourhoods of Old Raqqa and Rasheed, and has suffered significant damage. The markets in these neighbourhoods, and in particular its Hawala agents, bring residents from throughout the city.

Reported priority needs: healthcare, electricity, education

Nutrition

• Some mothers face difficulties breastfeeding children up to 2 years old and struggle to access milk powder. A common alternative way to feed young children is mixing tea with bread, or yoghurt.

Protection

• Residents are reportedly afraid of high levels of criminal activity, including theft and drug abuse, and generally do not go out at night.

Health

- There is reportedly one clinic, operated by two NGOs, and one blood bank run by the local authorities in the same building known as the 'Saif al Dawlah' clinic..
- KIs reported that there are two private hospitals in Rasheed: one is functional while one is non-functional and has extensive material damage. Additionally, there is one non-functioning public clinic.
- Access to healthcare is reportedly inhibited by high costs, overcrowded facilities and lack of specialised services.

WASH

- Water is accessible through the main water network, although people living on higher floors have limited access due to weak water pressure.
- Water has a dirty and brown appearance for 2-3 minutes after running, and has reportedly caused some cases of diarrhoea.
- Despite regular garbage collection in main streets, garbage is accumulating in the side streets, causing some sanitation issues such as rats.

Al-Basil

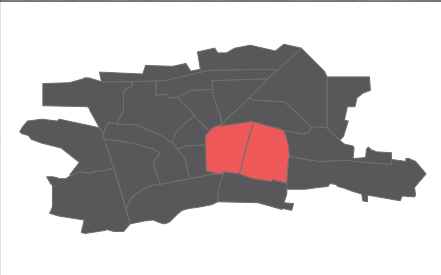
Markets

• Old Raqqa and Rasheed are primary market destinations for NFIs for residents throughout the city, although residents also go to Hettin and Hisham Ibn Abd Al Malek areas, particularly for shelter materials.

Cash

• Almost all of the city's Hawala agents are found in Old Raqqa neighbourhood and residents only access Hawala services here.

| | | | | | | | |
|--|-------------------------|--|-----------------------------------|--|----------------------------|--|---------------|
| | Administrative Building | | Education (non-functioning) | | Hospital (non-functioning) | | Hawala agents |
| | Bakery | | Health facility (non-functioning) | | Hospital (functioning) | | Market area |
| | Education (functioning) | | Health facility (public) | | Mosque | | |
| | | | NGO clinic | | | | |



Meters
0 100 200

Neighbourhood Profile

Harat al-Badu & Kahraba & Qitar, Ar-Raqqa City

Estimated population: 3,305 - 3,790 households

Population breakdown:

| 0-5 | 6-18 | 19-59 | 60+ |
|-----|------|-------|-----|
| 27% | 30% | 29% | 14% |

Overview: These neighbourhoods have a moderate level of access to services through their proximity to central Raqqa. The area suffers from a high level of infrastructure damage, particularly in Harat al-Badu, whose residents often live with more than one family in same household.

Reported priority needs: health, education, food

Nutrition

- Many households reportedly cannot afford baby milk powder and use milk powder meant for general use instead, although this is less nutritious.
- Some mothers reportedly receive nutrition support from a local NGO in Tawasu'ya.

Education

- KIs reported that here are three functional primary schools in the neighbourhoods.
- Children at the secondary and high school levels reportedly go to Tawasu'ya to attend school, although attendance is very low
- KIs reported that the lack of facilities and the distance to the existing ones is a major hurdle to accessing education for children, particularly for young ones.

Markets

- The market in Kahraba reportedly sells food as well as some basic NFIs. Residents go to Old Raqqa and Rasheed to buy most NFIs.

Bakeries

- KIs reported that a total of five bakeries operate in the neighbourhoods, two of which are public bakeries that receive flour support from local authorities.
- Public bakeries reportedly struggle with capacity and flour shortages, which inhibits residents' access to bread because many cannot afford the bread from private bakeries

Andalus

Qitar

Kahraba

Harat al-Badu

Rmela

Electricity

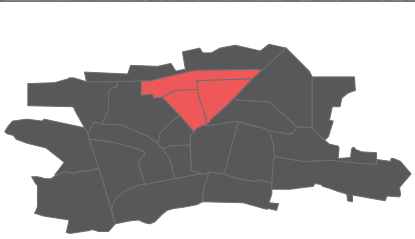
- Community generators reportedly supply the neighbourhoods with electricity between 8-10 hours a day. Due to inability to pay usage fees, some residents use smaller batteries instead.

WASH

- Water is available through the main network, though the water pressure is weak in some sections of Harat al-Badu and Kahraba, especially in higher floors of buildings. These residents require that water is trucked to them.
- In Harat al-Badu and Qitar, sewage water reportedly comes up from toilets and sinks sometimes. Local authorities reportedly assist residents in pumping away water when this occurs.

Healthcare

- Except for a private hospital in Harat al-Badu, only pharmacies and some private clinics are reportedly available in the neighbourhoods.
- KIs reported that access to healthcare is challenging for those who live far away from clinics and in Central Raqqa, due to transportation costs as well as high prices of medicine.
- Access to healthcare is particularly challenging for households in Harat al-Badu due to higher rates of poverty.



Bakery



Hospital (private)



Market



Education (functioning)



Mosque



Education (non-functioning)



Water tower

Meters
0 100 200

Annex I: Area-Based Assessment of Ar-Raqqa city, Healthcare Services and Infrastructure in Ar-Raqqa City

Methodology

This section outlines the current status of healthcare infrastructure and services in Ar-Raqqa city, and the perceived healthcare needs of residents based on expert Key Informant (KI) information. Between 23 September and 5 October 2018, REACH conducted KI interviews with two public health officials, six health practitioners working in different hospitals in Ar-Raqqa, and one healthcare expert working for an NGO in a health clinic in the city. The findings of this assessment should be considered as indicative only.

Healthcare facilities

| | Functioning | Non-functioning ¹ |
|-----------------------|---------------------|------------------------------|
| Public hospital | 2 | 2 |
| Private hospital | 5 | 4 |
| Public health clinic | 2 | 3 |
| NGO operated clinic | 6 ³ | 0 |
| Private health clinic | 75-125 ⁴ | N/A |

Level of functionality and reported shortages for hospitals²

Medical personnel

Four of the six KIs who work in hospitals reported that their places of work lacked sufficient doctors. Three of these six hospitals reportedly had insufficient trauma surgeons, midwives, and female doctors. Doctors with vascular expertise were reportedly not available in any of the hospitals. **Not only is there a shortage of qualified personnel amongst the population, KIs indicated that many doctors and midwives also prefer to work in private clinics due to higher salaries.** Conversely, no shortages of pediatricians or nurses were reported.

Medical shortages

All KIs who worked in hospitals reported that shortages of medical items existed in their places of work, with an urgent shortage of prosthetics reported for almost all hospitals. Additionally, X-ray equipment and insulin were reportedly in short supply in four hospitals. Three hospitals reported shortages of general anaesthetic medicine. Despite reports that the situation had improved since the beginning of the year as a result of increased support from aid organisations, **these shortages were attributed to the high cost of medical supplies and a lack of sufficient access to financial resources for hospitals.**

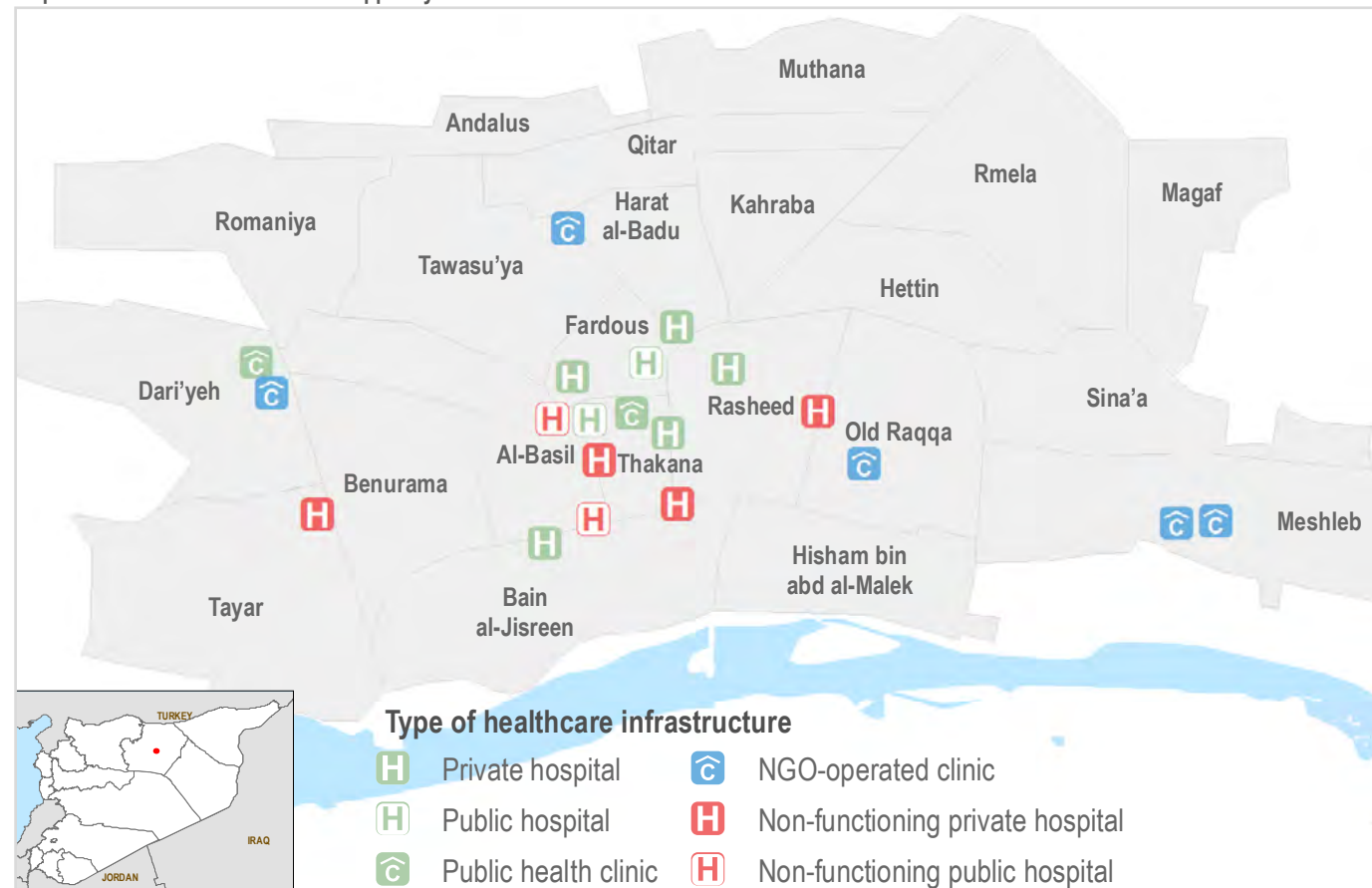
Operational barriers

Electricity shortages were reportedly another major barrier to hospitals functioning at full capacity. Five hospitals reportedly experienced severe issues in securing sufficient fuel for hospital generators to run for the necessary 24 hours a day. These issues were related both to the insufficient availability and the high cost of fuel. **High running costs and security issues were highlighted as additional barriers.**

Specialised healthcare needs

KIs from all hospitals reported several healthcare procedures and specialisations that are urgently needed but are unavailable in the city. **Most prominently, all KIs who worked in hospitals reported a need for dialysis machinery. Additionally, the need for surgical capacities and diagnostic services for tuberculosis were reported as needed by five KIs.** HIV/AIDS diagnostic services and treatment for skin burns were also highlighted as unavailable by four and two KIs respectively.

Map 1: Health infrastructure in Ar-Raqqa City



1. Non-functioning health facilities are considered to be health facilities that are not operational and are not serving any patients.
 2. The findings for this section only include data from the KI interviews conducted with informants from five private hospitals as well as one public hospital.
 3. There is one clinic operated by two NGOs, and one blood bank run by local authorities all located in the same building in Old Raqqa.
 4. KI responses given when estimating the number of private clinics in the city ranged between 28 and 200. Given the significant difference in these numbers, REACH made a mid-range estimation.

Access to healthcare and needs of Ar-Raqqa residents⁵

- KIs reported that residents of Ar-Raqqa primarily access healthcare through public health clinics in Old Raqqa, Dariyeh, Meshleb and Thakana, in addition to the public hospital located in Fardous.
- The main impediments to access to healthcare for residents in Ar-Raqqa was reported to be three intertwining factors; the lack of sufficient access to public healthcare, the distance required to travel to the existing public health facilities, and healthcare being unaffordable.
- According to KIs, the first step towards improving services and access to healthcare for residents of Ar-Raqqa should be the reopening and the rehabilitation of the public national hospital, which will increase the capacity to support residents in the city. In addition to the need to open further public primary care services, KIs emphasised the need for additional specialised care services with a particular focus on dialysis and kidney treatment services, as well as skin burn treatment services. The lack of sufficient financial resources and support from the international community was reported to be the main barrier to addressing these needs.

Access to medicines and medical items

- Residents of Ar-Raqqa city primarily access medicine through pharmacies, followed by public healthcare facilities and private healthcare.
- Vital prescription medicines such as insulin and tuberculosis medicine were reported by seven KIs to be unavailable to residents in the city. Similarly, rabies medicine and cancer treatments including chemotherapy were reportedly not available at all.

Table 1: Availability and affordability of specialised medicine⁶

| Medicine type | Available | Affordable |
|-----------------------------------|-----------|------------|
| Insulin | No | N/A |
| Antibiotics | Yes | Yes |
| Tuberculosis medicine | No | N/A |
| Heart and blood pressure medicine | Yes | Yes |
| Chemotherapy | No | N/A |
| Rabies medicine | No | N/A |

- Residents reportedly travel outside of Ar-Raqqa to access unavailable and unaffordable medicine, primarily to Damascus city.
- Despite the continued weak state of the healthcare system, KIs reported that the situation had improved since the beginning of the year. However, respondents described the entry of medicine into Ar-Raqqa as being limited by restrictive import and customs procedures which drive the price of medicines up.

Primary needs

Top 3 reported healthcare needs

- 1 Assistive devices (e.g. prosthetics, wheelchairs, etc.)
- 2 Treatment for chronic diseases
- 3 Surgery

- According to KIs, the most important healthcare need of residents in Ar-Raqqa was related to assistive devices, such as limb prostheses, wheelchairs, and crutches.⁷ Treatment for chronic diseases was reported to be the second most critical healthcare need for residents, which suggests that long-term public health-related needs are pressing. Surgery was also highlighted as a priority healthcare need in Ar-Raqqa, which may be exacerbated by the lack of qualified surgeons working in the city.

Leishmaniasis

- All KIs reported that skin disease associated with leishmaniasis was either common or very common throughout Ar-Raqqa city. The prevalence of this type of disease has reportedly increased since the beginning of the year, and was attributed to the presence of sandflies. These find suitable sites for vector breeding in the rubble and the unsanitary conditions across the city.⁸

Immunisation

- KIs reported that almost all children in Ar-Raqqa city are receiving immunisation against basic childhood diseases such as DTP3, Polio, and Measles due to a recent focus on immunisation campaigns.⁹ Following the gradual return of residents to Ar-Raqqa, immunisation has reportedly increasingly been provided free of cost by aid organisations.

Water quality issues

- Public health-related issues have reportedly emerged from the consumption of contaminated water in Ar-Raqqa city. Contamination is reportedly prevalent in both the main water network and in water trucked from the Euphrates river. KIs reported that the current system of chlorinating water for consumption is not sufficient or efficient, which has led to waterborne diseases such as diarrhoea, as well as bacterial and skin diseases, being common in the city.

Table 2: Prevalence of waterborne diseases in Ar-Raqqa city¹⁰

| Health issue | Prevalence |
|--------------------|------------|
| Diarrhoea | Common |
| Cholera | Uncommon |
| Typhoid / Typhus | Uncommon |
| Bacterial diseases | Common |
| Skin diseases | Common |

5. The findings for this section includes data from all 9 KI interviews conducted with health practitioners and public health officials in Ar-Raqqa city. 'Affordability' was determined by the KIs' perceptions.

6. KIs were asked to identify whether these medicine types were available in public and private healthcare facilities in the city, and if it was generally affordable for residents.

7. Notably, the need for prostheses and the associated limb reconstruction surgeries for patients with blast wounds was also included as a write-in answer in different sections of the survey by four KIs.

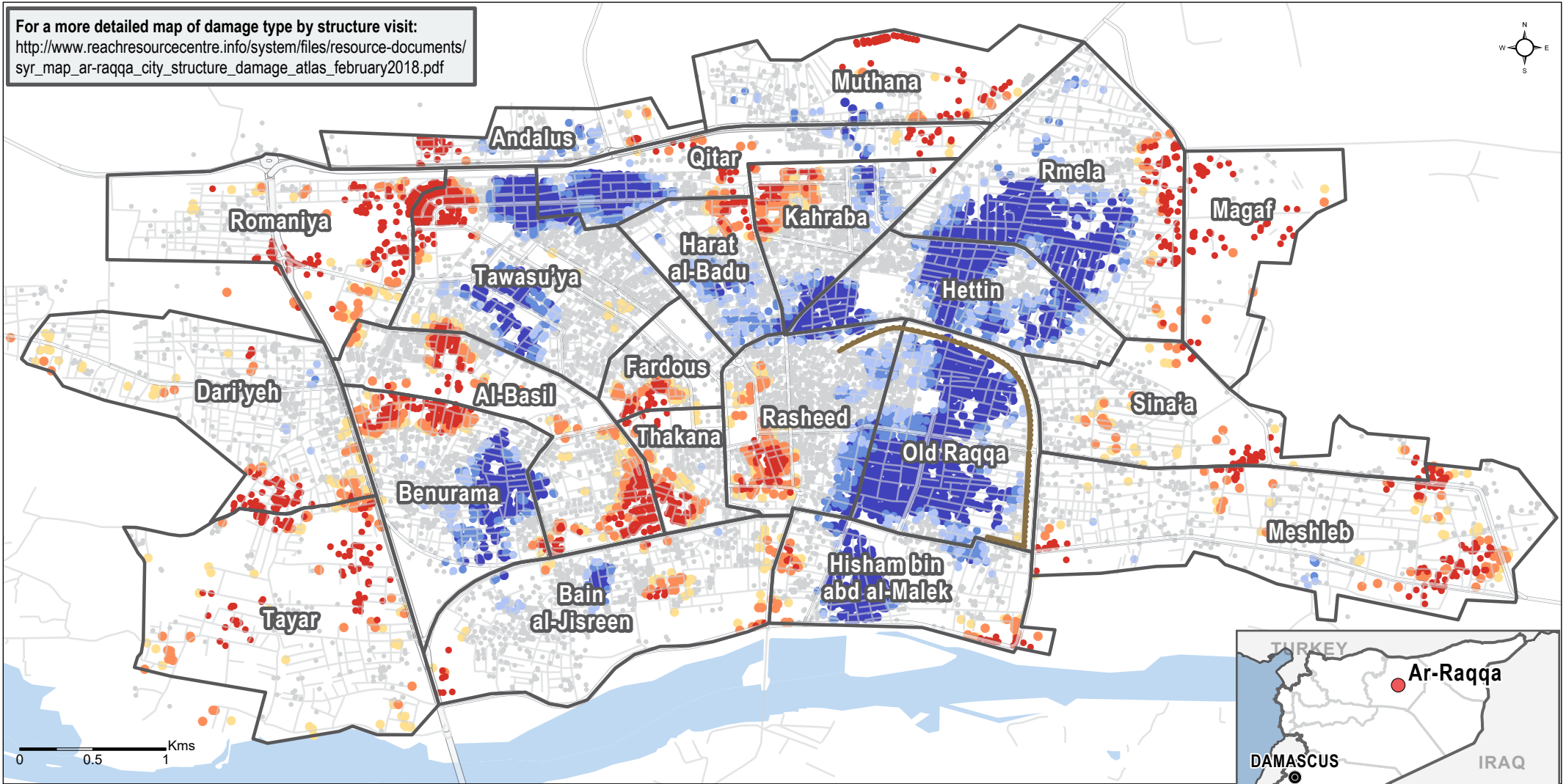
8. Vector breeding is the natural ecological breeding process for flies.

9. This indicator only assessed ongoing immunisation efforts against basic childhood disease for children today, and REACH were not able to assess the status of any ongoing catch-up campaigns targeting missed age cohorts.

10. KIs were asked to assess the prevalence of waterborne diseases by rating them as 'very common', 'common', 'uncommon', or 'never occurs'.

Annex II: Area-Based Assessment of Ar-Raqqa city, Prevalence of Moderately Damaged Structures for Shelter Rehabilitation

For a more detailed map of damage type by structure visit:
http://www.reachresourcecentre.info/system/files/resource-documents/syr_map_ar-raqqa_city_structure_damage_atlas_february2018.pdf



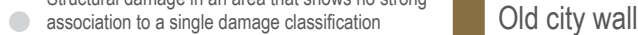
High prevalence of destroyed and severely damaged structures



High prevalence of moderately damaged structures



Structural damage in an area that shows no strong association to a single damage classification (destroyed or moderately damaged)



Optimized hot spot analysis

Using a census of damage points created by UNOSAT, REACH Initiative used Optimized Hot Spot Analysis, to identify statistically significant areas of high and low (hot and cold) levels of damage in Raqqa. To be a statistically significant hot spot, a feature will have a high value and be surrounded by other features with high values as well. The local sum for a feature and its neighbors is compared proportionally to the sum of all features; when the local sum is very different from the expected local sum, and when that difference is too large to be the result of random chance, a statistically significant z-score results. The tool used a categorical, numeric variable, ranking damage from 1 (completely destroyed) to 3 (moderate damage).

More information on the tool used is available here: <http://pro.arcgis.com/en/pro-app/tool-reference/spatial-statistics/how-optimized-hot-spot->

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 or donors mentioned on this map.



Data sources:
 Satellite Imagery used in Analysis: GeoEye-2 from 21 October 2017
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 Road Data: OpenStreetMap
 Boundaries: REACH Data Collection Units (DCU)
 Analysis: UNITAR-UNOSAT
 Production: REACH Initiatives