ALEPPO

City Profile July 2019





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Acrony	IYMS MP Member of Parliament		Member of Parliament
AKTC	Aga Khan Trust for Culture	MSF	Médecins Sans Frontières
CBS	Central Bureau of Statistics	NDF	National Defence Forces
CFP	Community Focal Point	NGO	Non-Governmental Organization
CFS	Child Friendly Space	NNGOs	National Non-Governmental Organization
CSO	Civil Society Organization	PYD	Democratic Union Party
DGAM	Directorate General of Antiquities and Museums	RPBA	Recovery and Peacebuilding Assessment
ERW	Explosive Remnants of War	SAA	Syrian Arab Army
FA0	Food and Agriculture Organization	SAMS	Syrian American Medical Society
FGD	Focus Group Discussion	SARC	Syrian Arab Red Crescent
FSA	Free Syrian Army	SYP	Syrian Pounds
GAP	Southeastern Anatolia Project	UNICEF	United Nations Children's Fund
GDP	Gross Domestic Product	UNDP	United Nations Development Programme
GIS	Geographic Information System		United Nations Educational Scientific and
GoS	Government of Syria	UNESCO	Cultural Organization
GTZ	German Technical Cooperation Agency	UNHABITAT	United Nations Human Settlements Programme
HLP	Housing, Land, and Property	UNHCR	United Nations High Commissioner for
HOBOOB	General Establishment for Cereal Processing		Retugees
		UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
	International Committee of the Red Cross	UrbAN-S	Urban Analysis Network for Syria
	Furenany Displaced Person	WHO	World Health Organization
	European Commission's Joint Research Centre	WHS	World Heritage Site
INGU	International Non-Governmental Urganization	YPG	Syrian Kurdish People's Protection Units
	Islamic State of Iraq and the Levant		
KI	Key Informant		
KVA	Kilo-Volt-Ampere		
L/c/d	Litres per capita per day		
LDF	Local Defence Force		
METAP	Mediterranean Environmental Technical Assistance Programme		
MoE	Ministry of Education		
	Ministry of Local Administration and		

MoLAE

Environment

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Disclaimer

The information and views set out in this report are those of the authors and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

The content of this report serves to feed in preparations for the post-agreement phase, thereby creating assessments and analytical building blocks that could enrich a possible future Recovery and Peacebuilding Assessment (RPBA). Where feasible, the content of this study could be used to inform current humanitarian and resilience programming in line with the guidance of the EU Council Conclusions on Syria. The EU will be ready to assist in the reconstruction of Syria only when a comprehensive, genuine and inclusive political transition, negotiated by the Syrian parties in the conflict on the basis of UN Security Council Resolution 2254 (2015) and the 2012 Geneva Communiqué, is firmly under way.

Urban Analysis Network for Syria

The Urban Analysis Network for Syria (UrbAN-S) approaches the analysis of urban areas as an adaptive exercise to understand how cities are (or are not) functioning, and how the people living in them cope during, and in transition, from conflict. UrbAN-S brings a combination of expertise in urban analysis and information management, along with a collaborative and inclusive approach to better understand needs on the ground. This results in information which is more relevant and more accessible, building the capacity of Syria actors to use that information.

Objectives of UrbAN-S are framed within global efforts to enhance responses in urban areas, and the call for a paradigm shift in humanitarian assistance in urban areas to be community based.

UrbAN-S urban profiling provides an integrated snapshot of the current physical and social conditions from a conflict and displacement context. This includes identifying gaps between the population needs and the capacity of the city to provide for those needs. Analysis will support the identification of priority areas of intervention and contribute to inclusive, responsible and sustainable urban recovery in view of the post-agreement phase.

The Urban-S analytical framework serves as a roadmap for answering three main questions:

One: How have conflict dynamics affected or continue to affect the city?

Two: How have population movements affected, or continue to affect, the city?

Three: How and to what extent does the city provide an adequate standard of living for all residents?

1. Executive summary

Aleppo is one of the oldest continually inhabited cities in the world. Pre-war, the city of Aleppo was the largest city in Syria by both share of GDP and population, home to around 3 million residents in 2011. It was an important industrial and economic centre, as well as a major administrative hub for eastern cities. Aleppo's industrial and trade-based economy was boosted by a strong traditional business class and the wide availability of cheap labour, largely drawn from the rural migrant population living in informal settlements in the east of the city.

Like a wheel and spokes, Aleppo's economic and social influence radiated out, linking not only with its surrounding countryside but also through major arteries to larger markets in Damascus and Latakia, and Turkey's Gaziantep. The city's urbanized areas encompass roughly 100 square kilometers. Over the centuries, growth has occurred through both concentric development (outward from a core center), in addition to the development of numerous "satellite" centers and subcenters.¹ Like most cities throughout Syria, Aleppo's urban areas suffered extensive damage. During four and a half years of fighting, half of the city's population was displaced. From initial protests in 2011, to fighting amongst armedgroups, a brutal barrel bombing campaign, a siege, and the final military campaign, 87 percent of the city's informal housing areas were damaged or destroyed, meaning Housing, Land, and Property (HLP) concerns are the city's most critical destabilizing risk.

Public services and facilities across every sector have also been affected; and the economy has been shattered, due to looting, relocation, and destruction of the city's industrial areas. Unemployment has risen to ten times pre-war levels.

Governance has been compromised and complicated by foreign-backed groups. Local capacity for service delivery has been decimated by the large-scale displacement

"If you walk through the city of Aleppo today, you will be struck by both the sheer level of physical destruction and the ability of the locals to go about their lives despite it. In the face of all the hardships they face, most Aleppans will agree on the need to come together to rebuild their city, specifically the Old City of Aleppo, a UNESCO World Heritage Site and once the beating heart of this historic urban centre. Aleppans pride themselves in their economic prowess and ability to get by despite all hardships, a trait developed after centuries of being a hub for global and national trade. This prowess will allow them to rebuild their city, but only if the limitations forced upon them by international sanctions and postwar political dangers are relieved."

Former Aleppo City resident

The community's socio-economic makeup reflects the diversity of Syria's people. Western portions of the city have historically enjoyed the predominance of higher income residents, political leadership and formalized housing. In contrast, Eastern Aleppo was developed over the past decades as rural residents migrated to the city. Subsequently, eastern neighbourhoods are generally characterized by lower income families and informal settlements. The northern neighbourhood of Ash-Sheikh Magsoud currently contains the city's highest population density. It also hosts the largest concentration of Kurdish residents. Other prominent groups include Circassians, Syriacs and the largest number of Armenians in a single city outside of Armenia. Palestinian areas, including the UNRWA administered Al-Nayrub neighbourhood, also contribute to Aleppo's unique cultural mosaic.

Informality in Aleppo grew dramatically in the decades prior to the conflict, with rural populations moving to the city to seek economic opportunity. Formal housing development was far outstripped by demand, and the eastern neighbourhoods grew with around 1 million additional residents between 2004 and 2011. The city itself absorbed this growth for the most part, with unemployment only at 7.6 percent in 2011. Despite economic success, Aleppo took a backseat to Damascus in terms of public investment. A severely weakened infrastructure currently renders mobility in certain areas difficult and poses an obstacle to economic revitalization.

Each section of this profile paints a picture of the current needs of residents. Data analysis helps to support future prioritization of investments. The profile also provides elements of historic context related to different social, HLP and economic aspects. It touches on the root causes of conflict and escalation, contending that these should be considered in future response programming. Map 1.1: Land use in Aleppo



Key themes

- The city remains unstable and at risk of increased insecurity and renewed violence.
- Social cohesion is challenged, with massive divisions between communities, the large displaced community, and areas of the city.
- The demographics of the city have drastically transformed and any programming must take into account this new reality.
- Aleppo's urban areas suffered extensive damage. Much of the infrastructure has been damaged, degraded, and in some cases destroyed, including community institutions. Housing, Land, and Property(HLP) concerns are the city's most critical destabilizing risk both now and in the future.
- The economy has been shattered, with unemployment rising up to ten times pre-war levels at the height of the conflict. Governance has been compromised and complicated by foreign-backed groups. Local capacity for service delivery has been decimated by the large-scale displacement.
- Public services and facilities across every sector have been affected. Connection to the national power grid was severed, disabling the community's electricity supply. A third of all healthcare facilities were impacted. Ten public hospitals were completely destroyed, halving the number of pre-conflict public hospitals.
- Only 60 percent of schools remain operational, affecting over 500,000 school age children. There is a critical deficit in capacity to serve students. Both staffing and supplies for most basic services are either insufficient or misaligned to the current needs.
- Urban infrastructure and various other basic services and community functions have been severely impaired.

Findings

- Ensure social cohesion is an integral part of every programmatic response.
- Ensure conditions are in place for displaced residents to return to abandoned locations.
- Support an enabling environment focussed on area-based approaches, instead of individual based resilience projects.
- Invest in connecting corridors.
- Explore independent data collection, monitoring and community engagement alternatives.
- Spot and pilot renovation of cultural heritage locations to increase skills in the city.
- Ensure that tabula rasa planning (and redevelopment) paradigms, through rebuilding which includes the obliteration of history and records of the area, should be avoided.
- Factor in adequate local capacity development in all programming.

2. Methodology

The methodology for city profiles will be regularly refined in line with improving the analysis process. Moreover changes in context depending on the city, as well as data availability will also affect the methodology. The following briefly describes the methodologies adopted and utilized in development of the Aleppo City Profile. Further description of these methodologies are available upon request.

Coverage

Official counts put the number of neighbourhoods in Aleppo at 109.² As enumerators reported challenges with data collection in eleven neighborhoods, the profile successfully covers 98 of the city's neighborhoods. Seven neighborhoods contained "little to no population". These include: Al-Amerriyah, Al-Ballat, Al-Basel, Ash-Sheikh Maqsoud, Mokhayam Handarat, Al-Kawakbi and Youth Housing. Enumerators were also unable to collect community focal point (CFP) data in these. In addition, four neighborhoods (Alleramoon, Al-Nayrab, Jibreen, and Rasafeh) were inaccessible due to security concerns. Neither CFP nor asset data was collected in these neighborhoods. Where applicable, this is reflected in the profile's data visualizations.

Data compilation

The methodology for the data collection followed a mixed-methods approach. Therefore the profile represents a synthesized -area-based analysis utilizing the following methods:

Secondary data review

Information was derived by review of existing reports focusing broadly on Syria and specifically on the governorate and City of Aleppo. These reports provided historical and contextual information on pre-conflict trends and baselines which provided for the triangulation and contextualization of results from primary data collection.

Primary data collection

Asset survey

Trained field teams performed a comprehensive survey of assets in January 2019. The survey's primary objective focused on information gathering for a variety of public assets. This information was used to understand the damage and operational status of public infrastructure, municipal and community facilities. Combined with population, survey data is also used to support capacity analysis and needs of existing community members. Asset classes inventoried include governance, health, education, water, sanitation and hygiene (WASH), solid waste management, energy, and transportation.

Key informant interviews

A series of interviews with experts and knowledgeable people from a variety of sectors. Most interviews were conducted face-to-face in Aleppo. Several telephonic interviews with local government representatives were also conducted. Interviews were conducted with education officials, health care professionals, officials from the municipal and governorate services, exgovernment officials with local knowledge in the city and the region, local stakeholders and community leaders including representatives of the business community, as well as response actors including NGO staff. They also include those aware of the security situation and conditions of civil and cadastral records. Most of the interviews took place in February, 2019.

Community focal point(s)

Field teams interviewed two (one male and one female) or more neighbourhood representatives, or "community focal points" (CFPs) per neighborhood. The survey was designed to investigate community perceptions on a variety of sectors at the neighborhood level. Responses were closed ended, permitting only a singular answer. They addressed all studied sectors, providing insight into the needs of local residents.

Remote sensing

Satellite imagery and analytics were captured in February 2017 at a resolution of 0.3 meters. This was provided as part of the European Commission's regular monitoring of damage of the City since October 2014. Satellite imagery was analysed to obtain the level of damage of buildings and infrastructure. Definitions for damage categories have been defined by the European Commission's Joint Research Centre.³

Morphological visual data

Visual data including pictures, videos and base-maps (produced through a compilation of open-source materials) were analysed to understand changes which have occurred in the City. The data was then validated from multiple local sources.

Damage assessment analysis

An in-depth analysis of the damage was conducted to aggregate the assessment of damage at the neighbourhood level.

GIS tools were heavily involved to carry out the analysis. Land use classifications, average floor number and building typology were factored in order to calculate number of buildings and living units.

The results were compared to the damage points and estimations of affected buildings according to every damage level in each neighbourhood.⁴

The neighbourhoods were subsequently categorized according to the percentage of the affected buildings. The classification of damage is as follows:

- Not damaged neighbourhoods with less than one percent of the area damaged.
- Lightly damaged neighbourhoods with with area damage between 1-9.9 percent.
- Moderately damaged neighbourhoods with with area damage between 10-24.9 percent.
- Severely damaged or destroyed neighbourhoods with area damage more than 25 percent.

Population estimates

Population estimates conducted for the profile are taken from a variety of sources.

- 2010 estimates from the Syrian Central Bureau of Statistics.
- 2011 2013 populaton estimates are unavailable.
- 2014 2015 population estimates were based on mixed methods, using two primary sources:
 - Focus Group Discussions (FGDs) in the 5 assessment areas.
 - Kl questionnaire that included 64 neighbourhoods within the city's neighbourhoods.
 - Results were triangulated by information from other sources, including data from bread consumption, registration for assistance, and school registration records.

• 2016 - 2018 estimates were provided by UN operational partners through interviews conducted in local communities.

Infrastructure and services functionality analysis Access to health

Accessibility to healthcare services is estimated by measuring associations of the following key indicators:

- 1. Location and catchment area of functional facilities; in other words, distance to the nearest functional facility.
- 2. Presence of medical staff.
- **3.** Functional bed capacity (for hospitals only)
- 4. Access challenges such as checkpoints

The above indicators are quantified using three and four-point scales to reflect the degree of their impact on accessibility. All figures are contextualized comparing pre-conflict and most recent population figures with special focus on the vulnerable groups.⁵

Access to education

A nominal estimation of the number of students per each neighbourhood is calculated using the preconflict population pyramid as a reference for the actual population of the City. This number is then compared to the total functional student capacity of the schools in each neighbourhood. This gives a nominal deficit per each neighbourhood.

Access to functional education facilities has also been calculated based on functional schools in each Neighbourhood.

Access to electricity

Accessibility to energy presents information based on reporting of available grid power supply. It considers the connection, power provided, as well as the private service providers.

Access to water

Several indicators are utilized as a proxy for access to water, including:

- 1. Number of water supply hours per day.
- **2.** Reported water quality.

- **3** The original damage data points were provided by JRC and classified in four categories of damage. To comply with damage needs assessment, this layer was in some instances grouped into two categories.
- 4 "JRC Methodology for assessing the damage in Syria through visual interpretation of Very High Resolution (VHR) satellite imagery in built-up areas," *Joint Research Centre*
- 5 Vulnerable groups include: lactating women (calculated as 70 percent of children aged below one), population below 5 and above 65 years of age, and people with chronic disease (calculated as 5-10 percent of the population)

^{2 &}quot;Aleppo City Map." UN-OCHA (2018)

3. Demographics and population movement

The City of Aleppo grew rapidly in the pre-war period. Over the past half century, many workers migrated from the countryside into the city and begun to reside in informal settlements.⁶ The 2004 Census registered a population of 2,132,100. Seven years later, at the beginning of the crisis, this figure had grown to almost 3 million. Much of the population growth landed in the east of the city, which saw reliance on informal housing grow and by 2011, 40 percent of the city was informal housing. Many of these newer residents had ties to the rural areas around Aleppo, coming from rural and more conservative backgrounds themselves. As such, the rural-urban divide in the city became cultural and social, in addition to the geographical split between the two sides of the city.

Map 3.1: Aleppo neighborhood index map







Table 1.1: Neighborhoods with over 20% of IDPs to total population

Neighborhood name	#. Resident (Dec 2018)	#. Returnees (Dec 2018)	#. IDPs (Dec 2018)	% IDPs to total population
Youth Housing	0	0	437	100%
Ashrafiyeh	18,268	275	29,425	61%
Rasafeh	1,460	0	1,560	52%
Al-Ansari	5,345	45	5,153	49%
Andalus	2,968	0	2,425	45%
Beit Meheb / Jdeydeh	211	0	121	36%
Hameidiyyeh	7,485	0	4,233	36%
Tareq Ben Ziad	9,304	0	5,070	35%
Bustan Az-Zahra	6,820	0	3,594	35%
Ash-Shahba'a	10,400	0	5,413	34%
Syriac Quarter	19,691	0	8,920	31%
Nile Street	7,518	0	2,900	28%
Zuhour	16,200	0	5,887	27%
Al-Ghazali	24,686	0	7,965	24%
Masharqa	21,861	0	6,470	23%
Khaldiyeh	9,468	0	2,683	22%

Figure 3.1: Population and IDP Estimates (2010 - 2018)



Figure 3.2: Resident to IDP Ratio (2018)



Aleppo's population remained reasonably static in the early part of the crisis. Population shifts began within the City, as well as in and out of it, when the armed opposition entered Aleppo in 2012 and took over the east of the city. By the end of 2013, there were 840,000 IDPs within the city, as people moved in line with their political affiliations, or to avoid military frontlines and violence.

By 2014, the population had dropped in half. This was mainly due to the active frontline running through and around the city, as well as due to the extensive barrel bombing campaign waged by the government against the eastern half of the city. Most Aleppans fled to other parts of Syria, to Turkey, or to the relative safety of the Aleppo countryside. The population outflow was overwhelmingly from the city's east, where life became increasingly difficult. In July 2016, around 180,000 people were trapped in eastern Aleppo during a six month siege, which was accompanied by a military campaign by the government of Syria, Iran, and the Russian Federation. In the battle's final days, civilians fled the city into western Aleppo and the countryside, before a final evacuation of 38,000 people took place in December 2016. The number of residents has remained reasonably static since the end of hostilities in Aleppo, which currently holds roughly at 1.6 million residents and 216,000 IDPs.⁷ This represents 25 percent of the national urban population. Returns have been slow, with just 75,132 recorded, despite more than two years having passed since the end of the fighting.

Returns to Aleppo are controlled, with most of the city's displaced residing in armed-opposition areas or in neighbouring countries. As such, individuals wishing to return to Aleppo are subject to extensive security vetting before returning. Additionally, many areas in the eastern neighbourhoods of the city cannot be accessed for long term return. Large numbers of the city's middle classes have fled to Turkey, where they have built stable lives and are unlikely to return until the economic and security situation in Aleppo improves. Many of the less well-off individuals who have fled lived in the east of the city, where reconstruction is slow and militias still control some areas. These individuals fear for their security if they return to an area perceived as having been a stronghold of the armed opposition support. The residents face greater scrutiny from security forces, militias, and locals alike. For many former residents of east Aleppo, return will be impossible without significant political or security sector reforms.

Aleppo's population is unlikely to change dramatically in the near to medium term with returns subject to almost insurmountable issues around security, the economic situation, HLP, lack of services, and damage. HLP concerns in the east of the city are likely to discourage and inhibit the return of much of the population. Aleppo's economic stagnation and lack of short-term solutions are also likely to dissuade return from the middle-class and former-industrialists.

⁶ Kheder Khaddour, "Consumed by War: the End of Alepoo and Northern Syria's Political Order," Friedrich Ebert Stiftung, October 2017.

^{7 &}quot;Operational Context Assessment: Aleppo City, Jebel Saman Sub-district," COAR, February 2019.

4.Context Timeline

Contextual brief and conflict dynamics

Local causes and triggers of the conflict (risks of relapses)

Before the conflict, much of the population of Aleppo lived in neighbourhoods defined by place of origin, ethno-sectarian identity, or profession. With the conflict, these community dynamics were further reinforced. Indeed, arrivals from northern rural Aleppo and Idleb primarily lived in Salah Al-Deen and the surrounding areas; arrivals from eastern rural areas primarily lived in Bab Nierab, Sakhour, and Sukkari; Christians arriving from northeastern Syria lived primarily in Sulaymaniyah and Surrian; Armenians primarily lived in Midan; Kurds primarily in Ashrafieh and Sheikh Magsoud; and 'traditional Aleppines' in the Old City and its outskirts as well as Jamileh and Jdaiedeh.⁸ That said, neighbourhoods were also dictated by economic activities and class. For example, wealthier Armenians lived in Sheikh Taha, while workers lived in Midan.

Historically, ethno-sectarian identity has shaped socio-economic class, and informed a number of local dynamics, largely articulated through rural vs. urban or rich vs. poor dichotomies. Prior to the conflict, these identities and their associated tensions did not impede daily interactions, including in the economic domain, but have emerged as a key destabilizing factor in the post-conflict context.⁹

As the population of the City of Aleppo grew between 2004 and 2011, the growth rate outstriped the ability to provide formal housing. By the start of the crisis, this led to 40 percent of the city being comprised of informal housing, situated primarily in the eastern suburbs. These neighbourhoods had greater links with the surrounding rural communities. The Free Syrian Army (FSA) entered Aleppo in July 2012 from these neighbourhoods and the east remained controlled by the armed opposition throughout the conflict. As such these areas have heavy conflict damage, thus the majority of the displacement from the city originated from these areas.

Conflict effects on existing social, tribal, and political and cleavages

Currently, the security environment in the City of Aleppo is extremely fragile. The city is fragmented among numerous local and foreign militias, backed by a diverse range of actors. The fragmentation of the security environment, the proliferation of quasi-independent security actors, as well as underpopulated and heavily damaged areas, has resulted in significant looting and criminality. A sense of insecurity and fear permeates many neighbourhoods of Aleppo.¹⁰ The articulation of Sunni and Shiite religious identities as a political framework is of growing concern in Aleppo. Following the end of the conflict in Aleppo--during which Shiite militias played an important tactical role--the visibility, prominence, and influence of political Shiite Islam have increased in Aleppo. The influx of Shiite religious tourists in the City of Aleppo has increased, with tourists primarily coming from Lebanon, Iraq, and Iran to visit pilgrimage sites such as the Mashhad Al-Imam Al-Housin (known locally as the Nokta Mosque), located in Ansari Mashhad. Aleppo hosts an increasing number of Shiite religious education centres, with accompanying religious activities, processions, and public ceremonies. After the conflict, the constituent members of many Shiite militias remained in neighbourhoods such as Al-Sha'ar, Masakin Hanano, Al-Sakhour, Mashhad, Al Marjeh and Haydari. Moreover, many Shiite evacuees from Kefraya and Foa--displaced as part of the Four Towns Agreement and accompanying the July 2018 evacuation¹¹--are housed in southern Aleppo.¹² At the same time, a disproportionately large number of relief actors in the city are faith-based Christian organizations which serves to empower and increase the influence of Christian actors in the city.

Naturally, ethno-sectarian and socio-economic differences manifested in displacement patterns, which reinforced social divides and solidarity groups. Pre-existing socio-economic rifts between eastern and western Aleppo were exacerbated by demographic changes within Aleppo, as IDPs typically moved from east to west while more wealthy western residents (many among them Christians) displaced externally. Compounding this were the overtly sectarian, cultural, and socio-economic dimensions--overlaid spatially--that informed and shaped the political and military course of the conflict in Aleppo. ¹³

Going forward, programmes perceived as benefitting one ethno-sectarian or socio-economic group over the other, or reinforcing demographic and class changes in individual neighbourhoods, may exacerbate these tensions. This is even more of a risk considering the fact that the city's neighbourhoods are defined by their ethno-sectarian and socio-economic communities. Large-scale destruction in certain neighbourhoods, combined with the likelihood that these areas will be ignored or redeveloped in the coming phases of the reconstruction process, leaves former-residents and property owners at risk of HLP abuses, likely to fuel tensions in the medium to long term.¹⁴

Phase 1: Start of the conflict: March 2011 – June 2012

Aleppo saw only a limited number of protests in the early months of the uprising. Peaceful protests began at Aleppo University in April 2011, when students joined calls for political reforms. Demonstrations were witnessed at Aleppo University, Salah Ad-Deen and Sha'aar neighborhoods. Crowds were dispersed by Government of Syria security forces and police as well as supporters of the government. By May, thousands of students were protesting and many were killed when protests were violently broken up by the GoS.

Protests in the city of Aleppo began in earnest at the end of June 2011, and on July 1, 2011, thousands of people took part in the nation-wide "Friday of Departure" demonstrations. Aleppo joined the nationwide uprising, protests were violently dispersed by GoS security forces with protesters being killed during some demonstrations.

On October 11, 2011, a pro-government rally with thousands of participants took place in Saadallah al Jabiri, the main square in Aleppo situated on the western side of the Old City.

In early 2012, occasional retaliatory violent incidents occurred, but there was no widespread active military activity in the city.

Phase 1 APRIL 2011

Peaceful protests began with student-led protests at Aleppo University. GoS security forces were quick to disperse the crowds, sometimes violently with numerous fatalities in during May.

JUNE/JULY 2011

Protests started in the city, with thousands taking to the streets, months after protests began elsewhere in the country.

FEBRUARY 2012

Two suicide bombings hit a GoS security forces building in Aleppo city, killing 28 people, including 24 members of the security forces, and wounding more than 200. Al-Nusra Front claimed the attack.

Population impact: The population of the city of Aleppo was reasonably static during 2011 and the first half of 2012 due to relative stability in the city. The delay in protests reaching the city of Aleppo during 2011 and the fact that widespread military violence did not occur in the city during this period helped to maintain a mostly stable population.

Phase 2: The battle of Aleppo: July 2012 – October 2013

Through early 2012, the armed opposition made military gains in the north countryside of Aleppo, as far as the rural areas adjacent to the north-west of the city. Military action began in the city itself in July 2012, when armed opposition groups made advances from the Aleppo countryside into the city, beginning with Salaheddine. Pre-war population growth in the eastern half of the city of Aleppo came mostly from the rural areas surrounding it, meaning the armed opposition had greater social links and support with the east of the city when they entered. The battle resulted in high casualties on both sides though the armed opposition took control of most of the east of the city fairly rapidly. The city remained split in half for several years afterward.

Battles continued through 2012 and into 2013. From July to October 2013, the armed opposition besieged GoS controlled western Aleppo. The siege fuelled hostilities between the sides.

During the conflict period, Aleppo's industrial areas were decimated. Large industrial enterprises moved to Syria's coasts while factories sat idle around the city of Aleppo. The markets of the Old City were damaged and closed during the conflict as the frontlines cut straight through the UNESCO World Heritage area.

Phase 2

• JULY 2012:

On July 19, 2012, armed opposition groups took over Salaheddine neighborhood in Aleppo city. A combination of opposition groups, including the FSA, the Aleppo Military Council, Liwa' Al Tawhid, and the Syrian Liberation Front had made advances towards Aleppo city during early 2012. Within weeks they had taken control of most of eastern Aleppo city.

• SEPTEMBER/OCTOBER 2012:

The Al-Madina Old Souq in the Old City of Aleppo was burned down following clashes, which also damaged the Grand Omayyad Mosque.

JANUARY 2013

Flights from Aleppo international airport are suspended due to the conflict. 110 bodies discovered in the Aleppo river, apparently having floated downstream. They appear to have been executed; most had gone missing at government checkpoints.

JULY-OCTOBER 2013

Opposition forces enforced a siege of government-held west Aleppo depriving the area of critical supplies and aid.

Population impact: As hostilities intensified during the battle for Aleppo, the number of IDPs significantly grew within the city. By the end of 2013, there were around 840,000 IDPs within the city of Aleppo as residents moved to areas in line with their political persuasion or attempted to avoid frontlines and violence.

Phase 3: War of attrition: November 2013 – May 2016

Through 2014 and 2015, the city of Aleppo was essentially trapped in a war of attrition, with the city split almost in half and, the frontlines mostly stable both inside and outside the city. From the end of 2013, a heavy barrel bombing campaign was carried out against the eastern suburbs in an effort to push the remaining population out of the city. By 2014, the population of Aleppo had dropped to approximately half of what it was before the conflict.

Battles occured from time to time as each side attempted to cut critical supply routes into the other's area of control. Humanitarian aid to the east of the city was challenging, with aid groups having to bring supplies in from Turkey through tenuous supply roads under frequent air strikes. During this period a huge amount of critical infrastructure in east Aleppo was destroyed. Electricity and water supplies to the whole city were limited.

Phase 3

DECEMBER 2013

Deadly aerial campaigns involved the first use of barrel bombs, where more than 100 barrel bombs were dropped per day, resulting in more than 1,000 deaths in the 10-day bombardment. During that time, Aleppo city witnessed a large number of IDPs fleeing the eastern parts of the city to western parts as well as other areas within Aleppo Governorate. The barrel bombing campaign continued through 2013.

LATE DECEMBER/JANUARY 2014

During late December 2013/early January 2014, the Islamic State (ISIS) entered and controlled 10 neighborhoods in the eastern side of Aleppo city, only maintaining control for the duration of a few weeks before being ousted by other opposition groups.

• MAY 8, 2014

A large explosion destroyed the Carlton Hotel that was being used as a command center for GoS in the Old City neighborhood of Aleppo city.

• **FEBRUARY 2016**

The GoS and Russia blocked the Kilis-A'zaz-Aleppo supply road which connected Turkey to east Aleppo to retake opposition-held territories: Minnegh airbase, Nabul and Zahraa.

Population impact: By 2014, the population of the city had dropped to around half of the pre-war number, with many fleeing to the countryside and Turkey.

Phase 4: Final battle and siege: June 2016 - December 2016

The Russians militarily engaged in the Syrian conflict in September 2015. They soon oversaw a strategy aimed at regaining control of cities and neighbourhoods that had been under armed opposition control for years. In 2016, the city of Aleppo became the focus of this strategy. In July, GoS and Russian forces cut the Castello Road access road to eastern Aleppo and besieged the 180,000 residents. Over the following six months, an intense military campaign took place in an effort to take control of the city, with devastating humanitarian consequences. Heavy airstrikes added to the damage in the east of the city, with hospitals and schools coming under attack along with civilian areas. East Aleppo's remaining residents fled into west Aleppo and the countryside. In December 2016, an emergency evacuation took place wherein 38,000 people, including both opposition fighters and civilians, were bused out of the city into neighbouring Idlib Governorate. All of the small humanitarian organizations working in the east of the city stopped programming either because their staff were evacuated or funding stopped when Aleppo returned under GoS control.



JULY 2016:

GoS forces cut the Castello Road access road to east Aleppo and besieged the area with 180,000 people inside.

• DECEMBER 2016:

GoS forces take control of the city of Aleppo. A deal was reached with opposition forces, brokered by Russia, to evacuate fighters as well as 38,000 civilians outside the city to rural parts of Aleppo and Idleb Governorate.

Population impact: By the beginning of the siege, only 180,000 people remained in east Aleppo. By end of the battle in December 2016, the total IDPs in the city reached 1.5 million (2018). The stark increase is likely reflective of people being displaced from one area of the city to another.

Phase 5: Government of Syria control over the City of Aleppo: January 2016 – February 2019

Following the evacuation of December 2016, the GoS took complete control of the city of Aleppo. The east of Aleppo was largely deserted and heavily damaged. Return has been slow, with some returning from the west to their homes in the east. However, most of those residing in the countryside or in Turkey are choosing not to return. The access to some neighbourhoods is blocked, therefore displaced residents are unable to return home.

The city's security conditions have remained relatively stable except for minor incidents since the end of major hostilities in the city in December 2016. Armed opposition retain military positions in the countryside around the city and skirmishes with the GoS continue from time to time. Humanitarian aid from Damascus increased following the end of hostilities. As of February 2019, a large number of UN agencies and INGOs were operating in the city. Fewer Syrian NGOs are now operating in the city than before the end of hostilities, and are outnumbered by International organizations. Access is controlled by the government, where organizations are limited in the type of support they are able to provide in the most heavily affected areas of the city.

Population impact: Following the end of the Battle of Aleppo in 2016, displaced people from the city of Aleppo have slowly started to return. As of December 2018, the number of returnees to the city is 75,132 (2018).

FEBRUARY 2018

After coordination with the GoS, the Kurdish People's Protection Units (YPG) were allowed to maintain governance of the eastern districts of Aleppo city such as Ash-Sheikh Magsoud, Al-Hallak, and Bustan Elbasha.

DECEMBER 2018

In December 23, 2018 a total of 24 projectiles reportedly launched by armed opposition groups hit the New Aleppo, Az-Zahraa, and Hamadaniyeh (Dahiet Al-Asad) neighborhoods of Aleppo city. The strikes came in response to GoS shelling that continued to be reported against opposition positions in the western part of the city during the month of February.

8 "Operational Context Assessment: Aleppo City, Jebel Saman Sub-district," COAR, February 2019.

9 Ibid.

Phase 5

10 Ibid.

- 13 Ibid.
- 14 Ibid.

¹¹ The Four Towns Agreement started in 2015 when the fates of Zabadani and Madaya, two armed-opposition controlled towns between Damascus and Lebanon; as well as Foua and Kefraya, two Shiite towns located north-west of the City of Aleppo, were tied together. The deal created a mutual dependency between the areas, with everything from aid convoys and medical evacuations, to ceasefires being contingent to all areas. During the Aleppo evacuation deal, there was an attempt to tie evacuation of the Four Towns into the deal, but this ultimately did not occur. The Four towns were later evacuated, where some of the displaced from the Shiite towns of Foua and Kafreya were relocated to Aleppo, as those from the two formerly besieged Shiite villages of Nubil and Zahra, located north of the city of Aleppo, were before them.

^{12 &}quot;Operational Context Assessment: Aleppo City, Jebel Saman Sub-district," COAR, February 2019.

5. Governance and stakeholder analysis

Local administration dynamics and actors

As with all areas of Syria, Aleppo has a governor, a mayor, and both a provincial and a city council, and the position of governor is appointed by the President with full authority over the province and the city. Aleppo's current Governor was appointed by President Assad in September 2016.¹⁵ He is from Ayn Hour near Zabadani, in the Damascus countryside and served as the Director of Criminal Security in the Damascus countryside between 2010 until 2016.¹⁶ The present Governor is popular with many of Aleppo's current residents due to his role in solving some of the cities many problems following his appointment, most notably by alleviating the electricity and water shortages. However, local sources state that his popularity was challenged when he later ordered the evacuation of street vendors who were becoming a nuisance to local residents. The street vendors were mostly affiliated with government militias.¹⁷

The Governor is believed by locals to enjoy a close relationship with Iran and is thought to be a partner on several projects, including the power plant near Kwairis in Aleppo's eastern countryside, where he collaborates through a third party in a contract with the Iranian-funded Jihad al-Bina Organization.¹⁸ The Governor has significant influence over local actors due to his security background, which has resulted in a lack of trust between him and Damascus. Indeed, it resulted in censure by the Prime Minister and the President last year in the form of a short suspension. Following this incident, Damascus tighened Aleppo's municipal budget resulting in funding challenges for the city.¹⁹

On 16 September 2018, the local administration took part in nationwide local council elections, during which seats on both Aleppo's city and provincial councils were voted on. These elections had been delayed for three years, and took place seven years after the last election. Of note, the elected position of a head of the city council in Syria has similar authorities as a mayor in other countries. In Aleppo, this role is now filled by a university professor. He lacks influence and a constituency of his own, and as a result, will likely be subordinate to the Governor and the Ba'ath party.²⁰ The previous Head/ Mayor was believed by locals to be corrupt. Despite investing heavily in his re-election campaign, he was unsuccessful in his bid to renew his position, but he has retained a seat on the council. Generally speaking, the Aleppo City Council consists of technocrats with linkages to the Ba'ath Party. Following the recent local elections, the importance and independence of the Aleppo City Council diminished as the various local security forces act as de-facto powerbrokers in Aleppo.²¹ Within the local councils in the City of Aleppo and the province, a number of members have strong ties to militias, including the Baqir Brigade and the Iranian-supported LDF.²² The Aleppo Provincial Council consists of one Head, one deputy, and ten members. There is one Secretary of the provisional council and two council monitors.

The leader of the local Chamber of Commerce is a local MP who has been a vocal government supporter throughout the conflict. He is frequently amplified online through Russian media channels and bot-networks. Prior to his chamber role, he was a Vice President of Hamsho, an organization which was one of the first Syrian businesses to be sanctioned for support to the government of Syria. Despite his strong government connections and role as an amplifier of government messaging, it is not clear if he has any particular influence in Aleppo or further afield.

In addition to the influence of Iran, Christian religious figures have been experiencing increasing influence in the city, due to their ability to mobilize funding for humanitarian aid and reconstruction projects. They have mainly been working to repair houses for Christian residents and encouraging the return of Christians to the city.²³

Security actors

The Aleppo Security Committee is in charge of security in the city and is chaired by the Governor. Security in the city is tied into the Governor's links to Iran and Iranian-backed militias. Jihad al-Bina Organization and Aleppo Defenders Corps, which is a part of Iranian-led Local Defence Forces (LDF), are primarily functioning as the security apparatus for the city. ²⁴The Corps, in addition to the Air Force Intelligence, are the main actors controlling security in Aleppo, while the Russian Military Police are stationed near the city-limits close to Castello road.²⁵

Aleppo's militias draw from the local tribal communities. To some degree the situation is not new, pre-war both the Burreh and Harmibeh tribes maintained sub-militias and patronage networks which allowed them to be compensated with control of certain markets such as car washes and vegetables.²⁶ While the presence of tribal militias is not new in Aleppo, Russia and Iran are now trying to instrumentalize these groups in addition to creating alliances with security officers within the intelligence directorates.²⁷ ²⁸ Russia is trying to bring militias like Liwa al-Quds under the umbrella of the 5th corps,²⁹ while Iran has had greater success in co-opting local militias as they have a strong relationship with the tribe from which Liwa al Baqir is drawn from.³⁰

Iranian-led LDFs are controlling a number of eastern Aleppo neighbourhoods, in particular the Liwa al-Baqir Brigade. Baqir is a tribal militia which was formed in 2014. The militia receives Iranian support and participated in hostilities in Aleppo. The leader's brother is a member of parliament and enjoys a close relationship with the Governor. By exploiting his brother's position, the Liwa al-Baqir Brigade leader took control of a number of neighbourhoods in 2017, while Iranian-backed Iraqi militias like Fatymion, the Bader Organization, and al-Nujaba have headquarters inside these same neighbourhoods but disguise their presence where possible to avoid being targeted.³¹

The Kurdish People's Protection Forces (YPG) currently control the majority-kurdish the neighbourhood of Ash-Sheikh Maqsoud, and Sheikh Fares, and Bustan al Basha. They are joined by the Asayish, the paramilitary police force responsible for addressing criminal incidents and local security within these neighbourhoods. The groups are currently allowed to function independently by the Government of Syria. Although both neighbourhoods are completely surrounded by Government-held areas, movement in and out of YPG-held Ash-Sheikh Maqsoud is ongoing, which shows that the Government of Syria accepts their independence as long as they do not pose imminent security threats to other parts of the city.³²

Security situation

Security risks within the city are primarily due to the significant role of militias. There were at least 564 arbitrary arrests in Aleppo in 2018, according to the Svrian Network for Human Rights (SNHR).³³ This is despite heavy security vetting of returnees and the fact that the majority of those who believe they are at risk of arrest or conscription are not attempting to return to the city. Like in Deir Ez-Zor City, Iranian-backed militias have been blocking civilians from returning to the neighbourhoods they occupy. Businesses report that militias attempt to "conscript" their workers, including those with military service exemptions, in an attempt to extract bribes for their release. In some cases, businesses reported that they were paying the militias in advance, as a protection racket in order to save time.³⁴ Additionally, widespread looting of the Old City and unpopulated areas is largely believed to be the work of these militias.³⁵

The Governor led a security campaign in Liwa al-Quds areas to clamp down on their unlawful behaviour, resulting in the arrest of fighters and confiscation of smuggled goods. This campaign was largely due to al-Quds relationship to Russia and was not replicated in areas occupied by Iranian-backed militias with whom he enjoys a favourable relationship.

On the city's outskirts, the ongoing presence of armed opposition in the western countryside is the source of security risks and incidents. Hostilities are likely to continue until a larger political framework is agreed upon in Astana. Turkey is currently offering access without control of the M5 highway which runs through armed-opposition controlled area. If reopened, trade would re-emerge in Aleppo, but this is unlikely to occur without further hostilities in the interim.³⁶

Civil Society

Aleppo has traditionally had a vibrant civil society, including through the period of conflict. Even within areas of armed opposition control, the eastern areas of Aleppo had a comparatively broad spectrum of media workers, small NGOs, local council members, activists, and more. As with elsewhere in Syria, the end of the siege and the so-called reconciliation, saw the cessation of this work and the displacement of most of those involved in it. Since then, local NGOs have contributed to addressing the needs of communities to the most of their capacity, but there remains a shortage in local expertise within the development and humanitarian fields. There is now a noticeable lack of civil society actors operating in Aleppo due to the large numbers who fled the city or have joined international organizations and hence are not working on the ground with local initiatives. That said, there is a resilience within Syrian society that is reflected in the pockets of civil society that are managing to flourish within Aleppo today.

Civil Society organizations with a link to particular religious or ethnic affiliations appear to have great space to operate in the country and are capable of generating funds from their sponsors and communities. For example, the Armenian Church Relief Committee recently signed an agreement with a French NGO, SOS Chrétiens d'Orient, to assist in the rebuilding of Christian families' houses in the city. Indeed, a number of organizations affiliated with Christian entities and churches have arisen on the scene and increased the scope and amount of work, as have Armenian organizations. Such organizations were able to implement their projects more easily than other NGOs or civil society groups and locals report that they do not have to abide by the same increasing restrictions on humanitarian agencies. This led to a change in the dynamics and nature of the civil society sector, with a notable shift toward religious entities, such as the Monastery of Saint James the Mutilated, in addition to government approved agencies like the Syrian Arab Red Crescent and the Syria Trust for Development. These organizations in general do not necessarily abide by the same specific quality control methods as other NGOs and INGOs, nor do they implement monitoring and evaluation methodology according to local sources. Monitoring and evaluation is a challenge for all organizations in Syria, due to government restrictions.³⁷

A number of notable families run civil society organizations that are currently working on providing aid in the city. For example, the Al-Zaeem family established the Al-Ihsan Foundation, which works on providing health services to the residents of Aleppo in partnership with the World Health Organization, while the Hassoun family established the Syria Social Development Society in 2015. ³⁸ Additionally, due to the challenges in the education sector, some more well off sectors of Aleppo society are working on small projects to replace or complement educational opportunities for their own children. Most of these civil society actors are disengaged from the serious or political topics, such as insecurity or the hardhitting economic struggles of the poor, or how to ease the frictions between the IDPs and the host community.³⁹ At a local level, neighbourhoods are forming their own local committees to fund and address their communities' needs. Their financial resources, however, are barely enough to restore functionality to their neighbourhoods or to reconstruct their own homes to withstand upcoming harsh winters. There are also novel efforts by youths in the City of Aleppo who are currently working towards licensing and developing new social organizations. They are however likely to face similar challenges and constraints as all those working in humanitarian and civil society work. ⁴⁰ For organizations looking to support civil society work, supporting civil society groups that work with apolitical designations, such as women, vouth, IDPs, or neighbourhoods, would help to expand the space and work of civil society in a manner that does not simply consolidate the government's preferred system of facilitating the work of religious and ethnic groups aligned with their political position.

Observations on Governorate level decision-making and future ramifications on community development

Syria's central government has not yet decided what direction to take with Aleppo's future, either with redevelopment or its role in the country's power balance. Factions within the government have conflicting views on where they want to take things, and as a result, they are not operating as one on many issues. Decisions are taken for partial benefit of some factions against the interests of others, following which others will try to compete. However, this is limited in significance at the present time due to the fact the government does not have the funds to reconstruct the City and are unlikely to have them in the near future.

The Governor's difficult relationship with Damascus, along with his close relationship with Iran, makes local influence difficult in the city. As mentioned at the beginning of this chapter, the Local Council is limited in their influence and the central government has been depriving the municipality of funds and power in an attempt to effectively crack down on the Governor.

There is no transparency regarding the awarding of government contracts in Aleppo. In most cases, it seems contracts are gained using bribery and corruption, bids happen in an opaque manner and are almost always awarded to the same parties.

The municipal budget indicating the capacity of local recovery

Following the recapture of the city, the Government of Syria established the Aleppo City Council with the aim of rehabilitating primary infrastructure, which encompasses major street rehabilitation, debris removal, as well as water and sewage rehabilitation. The initial budget was of 11 billion SYP (~\$20 million USD). This is very little compared to the total cost of damage in the City of Aleppo which was estimated to be between \$6.2 and \$7.6 billion in 2017.⁴¹

Aleppo's municipal budget was reviewed by the Prime Minister and nine ministers during their joint mission to Aleppo in 2018. The review was in part due to the lack of trust between Damascus and Aleppo. The original budget pledge for 2019 was 9 billion Syrian pounds, but after the review this was reduced to only 2-3 billion SYP (~\$4-6 million USD).⁴² As a result, the primary challenge faced by local authorities in Aleppo is one of funding.

Compared to the municipality's budget, the UN's budget has positioned them as a major player in local recovery capacity. To this end, there is a significant opportunity for the UN and INGOs to use this disparity in budgets to ensure that local recovery is rights-based, resisting the perpetuation and consolidation of conflict-drivers and HLP concerns.

Aleppo Master Plan: risks

The current draft Master Plan is focused on rehabilitating a small geographical area of the city. It centers the Old City, where external funding for reconstruction may be forthcoming due to the international priority on cultural heritage rehabilitation. From there, the main commercial focus is 30 hectares in the centre of the city to the western side of the Old City. The area runs parallel to the western fence of the Old City from Sadr Jabri central square to the Antakya gate of the Old City. This commercial area includes plans for the redevelopment of infrastructure and the rehabilitation of main streets, squares. The plan also includes some tourist attraction investments to bring money to the municipality, the main one being five hectares for the wholesale market, where 179 shops will be rehabilitated.⁴³ Plans to redevelop housing are covered in the HLP section of this profile,⁴⁴ though drafts suggest that large swaths of residential and mixed-used neighbourhoods across the north of the city will be redeveloped, along with other smaller areas which would be privatized in the south and east of the city. Informal housing is initially to be left to stagnate until development projects can be identified.

Plans are neither ambitious enough to kick-start the economy, nor do they address or remedy the destabilizing factors and HLP issues inherent in Aleppo. The Master Plan is also at risk of not being implemented due to a lack of funds, where Aleppo's economic fortunes will continue to decline and destabilizing actors would be able to enjoy growing influence in the damaged neighbourhoods they inhabit and control.

Figure 5.1: Draft plan map (author's interpretation) for urban recovery prioritization. Suggests that western areas of the city will be prioritized for improvements.



Top-down governance and local control for planning and reconstruction

The Aleppo City Council was originally responsible for revising the Aleppo City General Regulatory and Aleppo Urban Plan, as well as for making decisions on a development plan for informal housing areas. However, the Council's role was reduced in favor of the Government of Syria state-run General Company for Engineering Consultancies (GCEC). Much of Aleppo's rehabilitation has been developed at a centralized level, without consultation with Aleppo's local leadership. Accordingly, the central government has considered the key sectors in the following order: A.) the Aleppo Master Plan, B.) the development areas, the investment zones, the rezoning under Law 15, and C.) the opportunities under Law 23.45 Rezoning is employed in planning processes in Syria to change the status of areas to less secure land-use designations, while other laws are used to allow some areas to be redeveloped without requiring any formal planning process. These laws are also used to conceal the nature of private-public partnerships and companies which can develop the areas. In concert, the same laws are used to ensure developments can be undertaken with the lightest regulatory burden to the benefit of those within the local administration or their immediate circles. Damascus has not yet given a clear signal about Aleppo's future or when local planning may be confirmed and translated into action.

Given the prominence and significance of Aleppo, as well as overall levels of destruction, master planning for Aleppo will likely continue to take a top-down approach. Opportunities for local buy-in to development, resilience, and rehabilitation programming will be critical to achieve sustainable development and inclusive outcomes. The current stalemate, combined with the ongoing insecurity, has discouraged business people and industrialists to return to the city.

Stakeholder analysis

Syria's central Government has kept Aleppo at arms length. The Governor and aligned security actors are the dominant actors operating within the city. The Baath Party and Iran have a significant level of influence through local elected officials, as well as military and security actors. The majority of the powerful businesses and civil society elite left the city during the conflict and the poor security and economic situation in the city has prevented them returning. The decimation of civil society during the conflict and the limited local opportunities to engage in relief work, economic recovery, or reconstruction, have prevented a range of local stakeholders from emerging. Religious figures, groups, and communities, have emerged as stakeholders with increased social influence and the ability to operate in humanitarian, reconstruction, and social spaces.



Figure 5.2: Actor mapping diagram

- 15 Interview with key informant researcher, February 2019.
- 16 https://syrianobserver.com/EN/news/25529/assad_appoints_diab_new_aleppo_governor.html
- 17 Interview with key informant researcher, February 2019.
- 18 Navvar Şaban and Suhail Al Ghazi, "Iranian influence within the Regime Army," *Omran for strategic studies*, April 15, 2019, http://om-ranstudies.org/publications/reports/iranian-influence-within-the-regime-army-2017-18-strikes-that-targeted-iran-in-syria.html
- 19 Interview with local interlocutor, February 2019
- 20 Interview with key informant researcher, February 2019.
- 21 "Operational Context Assessment: Aleppo City, Jebel Saman Sub-district," COAR, February 2019.
- 22 Agnes Favier and Marie Kostrz, "Local Elections: Is Syria Moving to Reassert Central Control?" *European University Institute*, February 3, 2019, http://cadmus.eui.eu/bitstream/handle/1814/61004/MED_RR_2019_03.pdf?sequence=4&isAllowed=y.
- 23 HAT Context Analysis, February 2019.
- 24 Navvar Şaban and Suhail Al Ghazi, "Iranian influence within the Regime Army," Omran for strategic studies, April 15, 2019, http://omranstudies.org/publications/reports/iranian-influence-within-the-regime-army-2017-18-strikes-that-targeted-iran-in-syria.html
- 25 Interview with key informant researcher, February 2019.
- 26 Common Space Initiative Interview, February 2019.
- 27 Liwa Al-Quds Brigade is a militia that consist of a majority of Palestinian fighters in Handarat and al-Nayrab Palestinian IDP camps, but also includes some Syrians and is aligned to Russia.
- 28 Common Space Initiative Interview, February 2019.
- 29 The 5th Corps is a division of the Syrian Arab Army which Russia is utilising as an umbrella for various militias, both pro-government and formerly opposition, in an attempt to regularize these fighters into the national army.
- 30 Interview with key informant researcher, February 2019.
- 31 Ibid.
- 32 "Context Assessment: Aleppo," Mercy Corps HAT, February 2019.
- 33 "At least 7,706 Cases of Arbitrary Arrests Documented in Syria in 2018," Syrian Network for Human Rights, January 3, 2019, http:// sn4hr.org/blog/2019/01/03/52991/
- 34 Personal interview with Common Space Initiative researcher by iMMAP, February 2019.
- 35 Personal interview with local interlocutor by iMMAP, February 2019.
- 36 Personal interview with Common Space Initiative researcher by iMMAP, February 2019.
- 37 "Context Assessment: Aleppo," Mercy Corps HAT, February 2019.
- 38 Ibid.
- 39 Interview with local intermediary, June 2019
- 40 "Context Assessment: Aleppo," Mercy Corps HAT, February 2019.
- 41 "Aleppo City Profile," Urban Analysis Network Syria, 2017.
- 42 Personal interview with local interlocutor by iMMAP, February 2019.
- 43 Draft Aleppo Master Plan and Development Areas map from Damascus source, February 2019.
- 44 See "Aleppo Master Plan and Development Areas" City Profile Chapter 6, page 33
- 45 "Source: https://www.nrc.no" by Laura Cunial, "Briefing Note: Housing, Land, and Property (HLP) in the Syrian Arab Republic," Norwegian Refugee Council, May 2016, https://www.nrc.no/globalassets/pdf/reports/housing-land-and-property-hlp-in-the-syrian-arabrepublic.pdf.

6. Housing

Along with reconfiguring the stagnant post-industrial economy, housing damage and HLP rights presents the Aleppo's largest challenges. The scale of housing damage, and its direct link to conflict-drivers and events, positions it as a significant destabilizing factor in the city. Government and governorate plans to redevelop the city currently play directly into the destabilizing elements. For Aleppo's more than one million displaced, housing damage and HLP will be--after security concerns--the critical deciding factor driving or preventing return. For those programming in Aleppo, it will be critical to ensure that interventions do not consolidate HLP concerns even if they are not able to begin to alleviate them. To ensure this, thorough context analysis and project design will play a fundamental role. The impact of damage on public facilities has also been severe.

The Old City neighbourhoods of Al Mansour, Al Ameen, Al Mahdi and Al Rasheed are most severely affected.

Damage and its impact on housing

Damage to housing and infrastructure in Aleppo has been extensive. Eye witness accounts reflect extensive damage, especially to eastern neighbourhoods.

The damage in the Governorate represents an estimated third of all conflict damage in the country.⁴⁶ Remote sensing analysis along with ground observations have been conducted to document the extent of the damage, which is now thought to be between 6.2 to 7.6 billion US dollars of repair work.⁴⁷ Land use classifications compared to the level of damage provide critical input to the spatial analysis required for future planning and reconstruction.

Figure 6.1: Damage severity by land use in Aleppo City (ha. and % of total)

Category	Damage area (ha)	% Damaged
Residential	1,287.7	%44.3
Street	352.9	%0.2
Industrial Areas	150.9	%19.5
Open Space	66.6	%5.5
Administrative	25.1	%5.5
Education	16.6	%10.8
Groves	10.5	%1.4
Commercial	9.6	%45.2
Mixed Residential & Commercial	4.2	%18.9
Health	3.7	%13.3
Cemetery	2.8	%5.3
High Education	1.5	%4.0
Garden	1.0	%3.7
Sport	0.7	%1.6
Touristic	0.6	%30.1
Historic Site	0.4	%71.9

Damage in Aleppo tracks along social divides and conflict dynamics. Local residents report that disputes over HLP issues are a key driver of community tensions and insecurity. This situation is bound to increase as displaced people attempt to return, and when official government area master plans are released.

Programming needs to include capacity assessment, needs identification and debris quantification, as well as economic impact analysis, urban planning and durable solutions. In Aleppo in particular, careful conflict context assessment is needed to ensure programming does not consolidate conflict drivers and perpetuate HLP concerns.

Impact on buildings and civil records damage

Of Aleppo's 109 neighbourhoods, 33 neighbourhoods are heavily damaged, and will require large-scale multifaceted interventions in future reconstruction plans and the work to preserve tenure rights. In total, 84 out 109 neighbourhoods were affected by the different levels of damage sustained during the intensive period of the conflict, impacting directly 1.82 million inhabitants.⁴⁸

Nearly half of the housing in Aleppo is structurally affected, while almost one-third of the city's neighbourhoods were subject to high levels of damage. 87 percent of the city's informal housing areas are damaged, which in turn creates 61 percent of the total damage in the city, and only one informal area [Jibreen, Palestinian Gathering] is not affected,⁴⁹ though current reports maintain that access is prevented to this area.⁵⁰

Many IDPs do not possess any statutory or cadastral documents proving ownership: some lived in informal housing and never had these documents, others are unable to replace lost or damaged documents. Up to 33,000 HLP records in the City of Aleppo were destroyed during the conflict.⁵¹ In addition, 77 percent of Aleppo's damaged housing only has permanent land records [without building descriptions], which makes the demarcation of private properties extremely challenging.⁵² Ambiguity emanating from the poor documentation of properties will lead to dispute, long litigation processes, and many forms of fraud, which renders the tenure rights in these areas specifically at risk. This calls for supporting alternative dispute resolution channels. This may include providing support to grassroots civil society actors to assist in the collection of evidence and community witnesses, as well as harnessing the community notables' capacity to address disputes, which has proven to be effective in other contexts under the present GoS regulation and law enforcement framework.

> "I went right through East Aleppo just after it fell two years ago and it was hard to find a building that was not damaged or flattened."⁵³

> > The BBC's Jeremy Brown

Impact of looting and theft

Looting has taken place at various stages of the conflict, and has been widespread in both housing stocks-primarily in conflict affected areas like the eastern neighbourhoods--and industrial areas of the city according to KIs.⁵⁴ Unoccupied houses were reportedly severely looted, in some cases to such a degree that they are inhabitable.

Despite extensive publicity about a government crackdown on looting in mid-2017, several months after the government took control of the affected neighbourhoods, looting still presents a legitimate risk across the city, particularly in neighbourhoods with limited returns or extensive damage. Businesses report that stocks and equipment left in premises within industrial areas overnight are at risk of vanishing.⁵⁵

Looting in Aleppo's Old City is ongoing. Bricks and rubble have been sorted and placed on the sides of roads and residents report that they disappear regularly; taken by unidentified gangs of men from around the city, according to local sources.

The city's capacity for return accommodation

Despite seeing very few returns to date, there is a shortage of useful housing available in the City of Aleppo at the present time. This is due to the lack of housing in areas with minimal damage that enjoy access to services. Based on current population and existing housing available, western neighborhoods experience housing deficits. In three western neighborhoods alone (New Aleppo, Hamadaniyeh, and Ard As-Sabbagh), there is a need for up to 50,000 units to house existing population. Whereas, eastern neighborhoods experience little shortages (or surplus units in some areas) due to the low population.⁵⁶

Much of Eastern Aleppo is inaccessible for return and has effectively been left in limbo until planning decisions are made. Initial suggestions are that the area will not be prioritized for repair, return, or redevelopment in the near to medium term.

Humanitarian engagement in these areas should be carefully considered. Programming(particularly shelter projects or refurbishments) which encourages return may be associated with refoulement risks due to the ambiguity of government planning and expropriation (see: Section 5 "Governance and municipal services"). However, in contrast, the presence of residents in the community may help to thwart tabula raza redevelopment ambitions and preserve the property rights of historical inhabitants.

Map 6.1: Housing supply surplus/deficit by neighborhood in Aleppo city



Damaged structures

Damage to buildings in conflict-affected areas, in particular the eastern neighbourhoods, is extensive. Structural checks have been limited to date. Humanitarian actors have undertaken some work surveying structural integrity and inhabitability, but are restricted to certain geographical areas and are unable to access all affected neighbourhoods. The municipality bears primary responsibility for assessing the safety of damaged buildings, but funds for the payment of engineers gualified to undertake this work are not available through these channels and residents cannot always afford to undertake this themselves. As a result of these factors, the safe habitability of damaged buildings has not been systematically assessed. Despite this, demolitions have begun, with the Syrian Ministry of Defence advertising areas and times where demolitions will take place on Twitter and on their website on a daily basis. In Aleppo, demolitions have taken place across the city.⁵⁷

Map 6.2: Severity of damage, by neighbourhood

Some damaged buildings in Aleppo have collapsed, most recently on February 2, 2019, when an apartment building in Salahuddin neighbourhood collapsed and killed 11 residents.⁵⁸ The government responded by saying they would evacuate 4,000 families from damaged buildings, mostly in the east of the city. The process for categorizing or assessing which buildings were to be evacuated remains unclear. To date, the evacuation process has begun on a small scale, with 622 people having been moved from unsafe buildings and are renting privately at their own expense, or staying with family by April 2019.⁵⁹ At this time local sources reported that there was no available alternative housing for the evacuated families. Those who cannot find their own alternative accommodation in the future may be placed into public buildings for shelter.⁶⁰





Figure 6.2: Damage in various Neighborhoods of Aleppo

In the absence of clear plans for the eastern neighbourhoods, it is likely that small-scale returns to those areas will continue and people will rebuild on their own to poor standards where it is possible. The government is likely to resist this in the first instance but will eventually be compelled to allow it, as demand will outpace their ability to provide formal housing, in much the same way as it did before the conflict. In Aleppo, where three informal houses were being built for every formal one in the pre-war years, informality is a fact of life.

Housing recovery for returnees

HLP issues are reported by key informants to be one of the core drivers of social conflict in Aleppo, primarily issues revolving around secondary occupation.⁶¹ Disputes are normally resolved by local leaders, with formal legal channels provided as a last resort.⁶² The municipality has prioritised the registration and vetting of secondary occupation cases and evictions to enforce court orders.⁶³ However, despite these legal solutions, real-estate related fraud is widespread in the City. In some areas, residents express worry about their properties being seized. In fact, the fear of losing property is driving return in some cases.⁶⁴

Access to certain areas of the city is restricted for some groups due to social, religious, or ethnic reasons. This may impede return for original residents from outside those groups. Ash-Sheikh Maqsoud, for example, is controlled by the Kurdish PYD forces and permission to enter is granted by them. In other areas, Iranian-linked LDF forces restrict access.⁶⁵

Residents returning to damaged properties are unable to access rehabilitation support except in a handful of areas of the city, and in many cases they must prove ownership of the property. This has resulted in secondary displacement of some returnees who could not prove ownership, or who were engaging in secondary occupation of properties in areas demarcated as priorities for return. Returnees to Aleppo are reportedly conducting their own repairs, to avoid higher rent costs in host communities. Others are selling their properties or purchasing properties near their damaged properties as it can be cheaper than repairing the damage. It is estimated that 70 percent of refugees are missing at least one form of identifying documentation, including HLP documents.⁶⁶ As such, many people are unable to prove ownership of their properties, in particular in Aleppo's east where cadastral records in informal areas were only registered for the land area and not building footprints in the buildings above. In addition, a reported 33,000 cadastral documents were lost in the City of Aleppo during the conflict.⁶⁷ Aleppo's formal cadastral records offices are currently in operation.

Old City

While the move to protect areas of cultural heritage in Syria dates back to the French Mandate, it was following the Syrian Antiquities Law 222/1963 that, between 1968 and 1974, Japanese urban planner Gyoji Banshoya was commissioned by UNESCO to draw up a set of general guidelines and a protection plan for the Old City. Aleppo's Old City was designated as a national historic area in 1976 and fell under the control over interventions outlined in Law 222.⁶⁸ The Directorate General of Antiquities and Museums (DGAM) expanded the Old City boundaries in 1978, before engaging UNESCO in 1979. After years of work by local activists⁶⁹, in 1986, the Old City of Aleppo was declared a UNESCO World Heritage property.⁷⁰

At that time, the Friends of the Old City of Aleppo and DGAM worked with UNESCO and organizations like the German Technical Cooperation Agency (GTZ) to support work in the area. In line with a plan for the Old City, the water and sewage systems were upgraded and street paving was renewed in 80 percent of the Old City, in addition to other renewal and conservation projects in the pre-war years.⁷¹ Aga Khan Trust for Culture (AKTC) was also involved in restoration work.

The Old City was a hub for tourism and commercial activity alike. However, during the conflict, it was at the centre of hostilities and suffered extensive damage throughout. In January 2017, immediately following the government's return to control of the area, UNESCO made an emergency assessment mission to the area. Two months later, this was followed by an international coordination meeting to discuss the recovery of the area, where it was decided that "UNESCO would provide the framework for the coordination of all culture-related recovery efforts for Aleppo."⁷²

The historic Ummayad Mosque was badly damaged in the conflict. It is being redeveloped with the help of funding from the Head of the Chechen Republic Ramzan Kadyrov.⁷³ Churches and cathedrals in the city have been refurbished by priests and patriarchs that are close to the government of Syria and that have access to significant financial donations from abroad. While initial government redevelopment and reconstruction plans for the city of Aleppo suggest that the Old City will be at the heart of the future of the City, Damascus has not yet given a signal about significant financial assistance to enact any such plan.⁷⁴ AKTC are undertaking work in the Old city in cooperation with UNESCO, but they too lack funds to undertake the entire task. In the interim, rubble is piled on the sides of the streets and is frequently looted according to local sources. For the purposes of humanitarian response planning, the Old City is treated separately from the rest of the city.⁷⁵ It is likely that it will be prioritized due to its central location, its potential to attract tourists back to the city over time, and its cultural heritage that is likely to attract greater financial support and development aid than elsewhere in the city, particularly during the current impasse regarding western reconstruction and stabilization funding in Syria.

It is reported that in some cases people are rebuilding their properties quickly and without regulation to help them assert ownership over them. This is particularly happening in the Old City where shopkeepers lack documentation and forming networks to allow them to vouch for each other's ownership, while they rebuild in a manner out of keeping with the historical nature of the area and restart their businesses.⁷⁶ Similarly, the shops of those believed to have supported the opposition are reportedly being expropriated.⁷⁷

Aleppo Master Plan and development areas

While time may heal many of the social wounds in Aleppo, time is also the one thing Aleppo lacks: in May 2018, the Government of Syria approved the long-awaited Aleppo City Master Plan.⁷⁸ The Prime Minister of Syria also announced that planning committees would begin to implement a series of micro-plans in Aleppo. The Aleppo Master Plan was initially proposed in 2011, and subsequently revised in November 2018 but had not vet been formalized.⁷⁹ Overall, the government has conflicting views on the direction to take in Aleppo, driven by different influential factions. Due to this fact, but also the fact that the government lacks funds to rebuild, there has not been a central strategic decision taken about the redevelopment of Aleppo in Damascus yet, and thus the planning process continues. Ministries have alternated working on a revised Master Plan, development areas, investment zones, Law 15 areas, Law 23, but have yet to come to a concrete decision for Aleppo.

What is clear is that initial priority areas are the Old City and its surroundings. Neighbourhoods immediately to the west of the Old City will form the basis of the commercial area of the city, according to government plans. The areas planned for development in the current version of the Aleppo Master Plan include a block of neighbourhoods in a strip along the north of the city. Some of these areas, such as an area called Youth Housing, are presently virtually empty, while others, such as Ash-Sheikh Maqsoud, are controlled by specific groups, in this case, the PYD. Parts of the neighbourhoods directly south of the Old City boundary are also marked for development, as is a strip running from south-west toward the Ar-Ramouseh industrial area.⁸⁰ (see Figure 5.3)

As part of the provisional Aleppo Master Plan, informal areas have also been broadly divided into two categories: those that will remain and those that will not.⁸¹ Many informal neighbourhoods are planned for redevelopment, though they are not all prioritized in initial phases. Some will thus remain in a state of disrepair for some time. In other areas, initial rezoning has begun to take place in the city. Haydariyeh neighbourhood in the city's north-east was rezoned under Law 15 last year, preventing returns to the area. Over recent months, a significant amount of demolition has taken place in the neighbourhood. Initial government plans see the neighbourhood turned into a park area, with the fate of current residents and property owners unclear. Programmes should be aware of this threat and ensure that they do not - directly or indirectly - contribute to further land appropriation of inequitable redevelopment.



Map 6.3: General building typology in Aleppo city

Map 6.4: Building elevation in Aleppo city



A Risk Analysis of Aleppo's Housing, Land and Property

Nine indicators classifying the level of risk and security of HLP at the neighbourhood level are described below. These components combined make up an HLP Security and Risk Index and provide a basis to guide protection programming, do-no-harm analysis and support to an overarching policy dialogue.

The index comprises analysis of the following:

1. Concentration of secondary occupation: areas of heightened risks

Reflects neighbourhoods reporting secondary occupation by various groups. The hosting neighbourhoods in Western Aleppo are not affected. Serious and large-scale property occupation are reported in neighbourhoods north of Aleppo's civilian airport. These areas appear to be eyed by militias operating in the city. Specifically, by groups identifying with cultural/ethnic identities (i.e. Shia'a, Ashayer/tribes, or Palestinian). Moreover, three neighbourhoods under Kurdish/ YPG control seem to present another type of risk. As two of the three now controlled by the YPG were historically Arab, they seem now largely occupied by vulnerable Kurdish families recently evicted from the occupied Afreen region. These cases cannot be easily resolved with exiting legal and dispute resolution options but will rather require broader political solutions.

2. Neighbourhoods predominately characterized by Informal / unregulated settlements

The mere fact that a neighbourhood is "predominantly" informal carries an inherently high level of risk. HLP security is low in these areas is low given lack of documentation. Historically, security around tenure in informal areas was a bi-product of social norms and customs. Verbal (and customary) agreements amongst neighbours and groups developed over generations provided solidarity within the community and ensured its collective protection. These agreements, however, are not recognized by state institutions and protections have been lost as a result of displacement.

The 2018 General Master Plan review compounds these concerns, creating imminent risks to current (and previous) inhabitants. The plan clearly indicates that ALL informal areas will undergo forced upgrades to comply with new building codes and reconstruction norms. Standards which historical structures will likely fail and may result in tenant eviction. Naturally, the master plan endeavor will not succeed everywhere, but the likelihood of implementation increases in informal settlements and areas with existing HLP insecurity. The lack of resources to enable organic recovery in these settlements will further encourage radical state solutions.

3. Proposed areas for real-estate development and radical reconstruction

Under Law 15 of 2008, six neighbourhoods are currently at risk for real-estate development. The "Law" enables developers with expropriative powers, offering current property owners a fraction of their property's value. Indeed, valuations alone under the present economic and displacement context are inherently problematic. We are aware of two neighbourhoods already enlisted as Real Estate Development Areas (REDA) and four more are in the pipeline. Return to these neighbourhoods has already been frozen in order to mitigate forced evictions.

4. Damage levels by neighbourhood

See "Damage and its impact on housing" and "Damaged structures" for discussion on the city's damage levels. Neighbourhoods with severe damage, especially, complicates recovery and exacerbate HLP risks. These areas will require detailed investigation in order to properly assess ownership, entitlements, potential risks of UXO and the structural integrity of buildings and supporting infrastructure.

5. Population decrease and unpopulated areas

Unpopulated neighbourhoods, or neighbourhoods that only have marginal population, increase security risks and activities that thrive in such a vacuum. This includes looting, secondary occupation, falsification of transactions, crime and lawlessness. Whether by design, or due to complex factors we don't necessarily understand, return to these neighbourhood is cumbersome and depopulated neighbourhoods are areas of elevated HLP risks. They can attract destabilizing actors and effectively put neighbourhoods up for grabs.
6. Implications from the 2018 Master Plan Review

Although the implications of the 2018 General Master Plan are not yet fully understood, initial review suggests that the plan heightens HLP risks for certain vulnerable areas. Many land use designations have been randomly (and arbitrarily) changed from their pre-conflict designations. Some areas previously designated, and utilized, as mixed or industrial use have now been identified for development as environmental parks or luxury housing. Notwithstanding the questions of spatial coherency, new land-use designations may increase risks to property owners and conflict with existing utility rights. Furthermore, the lack of information surrounding the master plan's development is problematic. Without involvement of major stakeholders - including civil society and the business community - the plan may prove ineffectual in guiding public policy at best, a perpetrator of continued community fragmentation at worst.

7. The Urban Cultural Heritage

Due to their vital importance in the city's recovery, damaged neighbourhoods within the World Heritage Site (WHS) are singled out for HLP risks. The Old City has been severely affected and damaged due to the conflict. Looting of heritage pieces, including artefacts and building blocks, continues to thrive. Many of the Old City's neighbourhoods were areas of intense fighting and vying for control. The value of these properties will be negatively (or positively) impacted depending on the management of recovery. Recovery efforts which are poorly managed, heritage-insensitive, and / or shelter-focused may serve to undermine the socioeconomic value of the district. Current projects in the Old City have been primarily driven by short-term gains, dishonoring to the WHS's historical significance. Measures should be put in place as quickly as possible to provide institutional oversight and accountability visà-vis key state commitments towards global heritage.

8. Return Intensity in affected neighbourhoods

"High returnee in damaged neighbourhoods" is a composite indicator which merges population estimates with damage classes at the neighbourhood level. By reviewing the population and damage nexus, we can understand areas where heightened risks to populations may occur. High risk neighbourhoods suggests that return is premature. Without robust public management in place, there is probability of immediate risks, including the loss of life. Numerous cases of UXO denotation - and more significantly - the collapse of entire housing blocks have been reported in at least three neighbourhoods. (see: Damaged structures). Due to a lack of resources, the municipality has been unable to intervene even in cases of clear public hazards. This includes buildings adjacent to access and motor ways. The Engineering Syndicate's capacity to adequately monitor building hazards also seems to be minimal.

9. Risk of lost HLP evidences

Over 33,000 property-related records have been reportedly lost or damaged. This presents overriding HLP risks to the community. Although there is no clear indication which parts of the city have been affected more, risks will be elevated in neighbourhoods with elusive land distribution forms (i.e. Informal settlements). Cadastral evidence remains the single most important originator of secondary evidences. In fact, even in the neighbourhoods where records are intact (like in Western Aleppo), questionable record restoration and a lack of cadaster credibility harms the business environment, erodes predictability and confidence in government institutions.

HLP Security and Risk Index

Although many overarching risks affect the community in its entirety (i.e. loss of records and the Old City), the HLP index establishes a neighbourhood-specific categorization of the level of risk. Based on analysis, six neighbourhoods are at high risk of concerns over HLP security. 75 neighbourhoods, roughly 70 percent of the city, are within medium risk category. 28 neighbourhoods, primarily in Western Aleppo, are assessed with low risks.



Aleppo property purchases

Current reports in Aleppo also suggest that vast amounts of real estate is currently undergoing ownership transfer. This includes purchases by a dominant business man with ties to the Assad regime. Local sources indicate that he is currently very active in purchasing properties in Aleppo's Old City.

The purchaser, who is on both the US and EU sanctions list, is believed to have strong ties to Iran, hosting talks with Iranian-backed tribal groups and the government. Reports allege he has been offering property owners 20 to 40 percent of pre conflict real value for their properties. Due to economic strains, some owners are accepting these terms. Others have preferred not to sell, presumably either in hopes of a better offer, or to benefit from reinvestment in the city's recovery.

The purchaser is also reportedly seeking to liquidate his enormous sums of Syrian cash made through exclusive transportation contracts awarded by Damascus. These monopolization of trade routes have been endorsed, in practice, by the Syrian Democratic Forces (SDF), who also rely on goods emanating from Damascus.

In other areas in Aleppo, reports indicates that unknown buyers are dominating the real estate market. Properties are being purchased, even in informal areas, which have been abandoned and destroyed. There are no indications of forcible sales under duress. However, with very little options (and limited returns), current economic conditions may pressure on residents to sell in order to escape financial stress. With little hope of salvaging damaged structures owners of informal property, especially, have succumbed to selling at fractions of pre-conflict values.⁸⁴ Analysis indicates that large purchasers may be seeking to consolidate at least a 51 percent share in each property. This will make them the majority partner and will allow them to benefit from future government-initiated land readjustment plans. Recent legislation, including Laws 10, 23, and Legislative Decree No. 5 (Amended in 2002), provide development rights to property owners with simple majority ownership.⁸⁵

Broadly speaking, a lack of transparent planning and public notification by local municipalities amplifies the maliciousness of these property purchases. Municipal plans currently are being developed to take advantage of Law 10 which explicitly target poor (and predominantly opposition) areas. These plans have been contracted to private firms without conducting any public participation and disclosure. Plans have not developed with consultations (nor even shared) with long-standing residents and owners; those who have the greatest stake in the community's future, and whom would best benefit from the increase in property values.

These urban planning "practices" - including hidden agendas and underhanded deals by investors and community leaders - perpetuates long-standing grievances and prolongs cycles of corruption. They risk continued exploitation of poor, displaced and vulnerable community members. They hurt everyone and create foundation for continued destabilization and conflict.

Housing considerations

- Bridge the gap between eastern and western halves of the city. In order to address conflict drivers and avoid aggravating community tensions, exacerbating HLP issues, and reinforcing demographic changes, the city's divide must be bridged through a phased approach that includes:
 - Making programming in western Aleppo contingent on programming in eastern Aleppo. Needs in eastern Aleppo are massive, but dividends in western Aleppo are also needed-specifically those focused on empowering vulnerable IDP communities.
 - Implementing programming across all neighbourhoods to avoid being perceived as benefiting certain groups over others and seizing on the potential opportunity presented by the present lack of funding to circumvent the government's reconstruction plans. By engaging in equitable programming across all neighbourhoods and social groups, there is an opportunity to increase the population footprint across the city, which may mitigate the risk of future land grabs.
 - Supporting the regeneration of cadastral evidence that integrates detailed risk assessment, involves independent actors, and includes rigorous monitoring and evaluation. ⁸⁶
 - Supporting alternative avenues for dispute resolution in the immediate term to mitigate HLP disputes and violations due to inadequate, destroyed, or non-existent HLP records.
- Integrate capacity assessment, needs identification, and debris quantification, as well as economic impact analysis, holistic urban planning, and durable solutions into project design.

- Continue and expand advocacy and piloting of alternative recovery solutions to severely damaged informal areas. While it may prove challenging to argue against government plans for total demolition and land readjustment in severely damaged informal areas, piloting area-based upgrade and recovery approaches is essential to demonstrate the opportunities and economic feasibility of a people-centred approach. Recovery actors should pursue advocacy and provide proactive support for alternative recovery solutions within local and central bodies engaged in damage assessments and master plan review.
- Conduct detailed vetting of beneficiaries from shelter and housing renovation programmes with due diligence. Vetting should also extend to implementing partners and contractors.
- Initiate programming in the Old City through documentation and pilot renovation activities. Several actors have already carried out assessments and identified priority projects, removed debris from numerous locations, and repaired essential public services. Such activities can increase accessibility in the Old City and mitigate the risk of continued looting. Moreover, archaeology and heritage documentation, and engagement with the Old City Municipality and the Department of Antiquities, can build the monitoring capacity of these actors to effectively preserve antiquities and historical monuments. Support for these activities should be mindful not to engage in or support discriminatory practices.
- Support civil society monitoring and media groups who are covering the HLP developments in the city in order to establish transparent and uninterrupted access to information regarding the HLP context in the city. Refugees, IDPs and evacuees from the City must be able to access reliable information sources and be aware of their rights, avenues and deadlines for making claims as well as how to challenge claims or actions taken by the local authorities.

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- 85 See previous footnote explanation of Law 23.
- 86 Cadastral evidence remains the key document around which revolves all other secondary tenure evidence, as well as the path to prove someone's property rights. Syrian Law enables the reconstruction of damaged records (Law 12 of 2016), and the administrative path to records reconstruction has manageable risks by default, as compared to the judicial path. However, care must be taken to engage a range of actors and to integrate monitoring and risk mitigation measures, and monitoring mechanisms.

7. Economy

Introduction

Before the conflict, Aleppo was the largest city in Syria, with respect to GDP as well as overall population. At its core, Aleppo was an industrial hub where social divides were united through interconnected economic activity. Aleppo produced textiles, pharmaceuticals, light crafts, olive soap, and processed food. However, before the conflict, Aleppo was already in economic decline, due to the impact of free trade agreements on the cities industry, which saw much of the production capacity become devoted to supplying low-quality products to markets ignored by international competitors.⁸⁵

Aleppo's pre-war economy was based on its internal connections within Syria as well as external connections abroad. Aleppo's economic influence radiated out into the surrounding countryside, but also through major arteries to larger markets in Damascus and Latakia in Syria and Turkey's Gaziantep.⁸⁶ Internally, each of Aleppo's neighbourhoods possessed a professional and social identity. Similar to a factory line, these individual components shaped the social and economic fabric that defined Aleppo. As a result, the Syrian conflict was especially devastating for Aleppo. Not only did it force the displacement of Aleppo's industrial base to southern Turkey and the Syrian coast, but it isolated the city from its rural base and surrounding markets.⁸⁷

Aleppo was less susceptible to the impact of the prewar drought and its knock-on effect on the agricultural sector than some other major centres in Syria. The rural areas of the governorate had access to greater water resources than seen elsewhere and Aleppo's role as an administrative centre to the cities and towns further afield remained intact. One factor of the drought was a population shift into the informal areas of the city, as seen elsewhere in the country. The majority of this population shift occurred into informal housing in the east of the city

National and regional perspective

Pre-war, Aleppo's economy was heavily dependent on its external relationships. The city played a large role as an administrative centre and supplier of goods for rural areas further afield, as well as being an economic hub through import and export to other markets in Syria and neighbouring countries. In this regard, Aleppo's economic success was intrinsically linked to its national and regional relationships.⁸⁸

However, the City of Aleppo was always in tacit competition with the capital, which undermined Aleppo's economic potential, and often played in favor of Damascus. Although Aleppo had a larger population, Damascus and its urban satellite cities were almost three folds the area of Aleppo, with more diversified spatial and economic choices and competences.

Structural issues inherent in this dynamic that constrained Aleppo's economic growth and role, included: i.) Damascus primacy as a political centre, and as a depository of the country's major infrastructure investments, ii.) Aleppo's distance from the political decision-making circles, which made it unfavorable to neo-capital investment, iii.) Aleppo's less-advanced labour market compared to Damascus and many other competitive centres in the region [for instance women's participation in the labour force was almost half of the rate of Damascus and level of education in the labour force was significantly lower], iv.) Aleppo's weak infrastructure investments which left the city less connected than a vibrant market would require [for instance, its decayed airport was unable to attract most carriers, and had no cargo service], v.) Aleppo's finance and banking sector was weak and auxiliary to Damascus, and vii.) Aleppo's muddled, and often corrupt urban expansion plans failed to reflect market flexible demand, and left the space to informality to occupy 40 percent of the city's area within a matter three decades before the war.89

Map 7.1: Aleppo City and Regional Market facilities - Markets, Bakeries, and storage facilities and damage levels



Economic profile

Historically, Aleppo was the country's largest population centre and the economic capital of Syria. The city's local economy was based primarily on industrial activities (especially in the textile sector but also pharmaceuticals and other sectors), followed by trade, agriculture, and tourism. Aleppo's industrial and trade-based economy was boosted by a strong traditional business class and the wide availability of cheap labor, largely drawn from the rural migrant population living in the city's informal settlements.⁹⁰

In 2012, Aleppo was contributing around 24 percent of Syria's total GDP, making it the largest city contributor in the country. The Sheikh Najjar industrial area contributed 166 billion Syrian pounds worth of exports in 2011.⁹¹

Aleppo's pre-war economic strength came from multiple factors, including: i.) the reliable water resources that gave the city and its rural hinterland an advantage over the rest of a country which was struck by drought and climate change, ii.) the strong culture of entrepreneurship and private sector-led economy (76 percent of employment was in the private sector, 20 percent in the public sector),⁹², iii.) the strong manufacturing base including in the textiles and small and medium industry, iv.) its significant cultural heritage-based tourism that diversified the city's resources, and v.) its regional role as a supplier of services to a large rural catchment.

Pre-war, the City of Aleppo had an unemployment rate of 7.6 percent.⁹³ Manufacturing and tourism accounted for the majority of pre-war employment, at rates higher than elsewhere in the country. Typical monthly household incomes before the conflict were 25,000-50,000 SYP⁹⁴ for a skilled worker and up to 100,000 SYP for a government employee.⁹⁵

Figure 7.1: Aleppo's labor force by economic sector (pre-conflict)



The public sector provided only a quarter of Aleppo's employment before the war, lower than in other areas of the country. Approximately 33 percent of employment was in the industry sector, 22 percent in hotels and restaurants, 18 percent in construction, 13 percent in private and public services and 4 percent in finance, insurance and real estate. Agriculture, transportation and communications together made up 10 percent of the labor force.⁹⁶

The tourism sector provided many of these jobs, in spite of Aleppo having a smaller tourism footprint than other areas of the country. This high rate of economicdependence on tourism pre-war - which has been decimated during the conflict - is why the city has placed a priority on refurbishment work on the UNESCO World Heritage area in the Old City and surroundings. This area is central to post-conflict redevelopment plans.

In 2010, there were around 97,767 operational business establishments in the city according to Aleppo's Chamber of Commerce.⁹⁷ That same year, Syria signed the "Levant Quartet" multilateral agreement with neighbouring countries including Turkey, Jordan and Lebanon which was an initiative towards strengthening economic and cultural relations. The agreement allowed for visa-free travel among citizens of participating countries and was working towards launching a free-trade zone for goods and services.⁹⁶ This agreement held promising prospects for economic activity within the city especially for businessmen of Aleppo who, although highly productive, were less strongly connected to the central government and received lower state benefits compared to the businessmen of Damascus.⁹⁹, 100, 101

Impact of the conflict on the economy

At present, Aleppo's economy is effectively destroyed: the majority of commercial infrastructure is damaged, and almost the entirety of light industrial infrastructure is damaged. The main industrial areas, Sheikh Najar, Heidariya, 2 Billeramoun, and al-Ramouseh, were only partially damaged, but many were heavily looted during the conflict, while the business-people who formerly ran the businesses in these areas have either rebuilt on the coast or fled to Turkey. More than two years have passed since the end of hostilities in the city of Aleppo and no substantive improvement in security or economic opportunity has emerged. The government has been slow to advance development and reconstruction plans for the city. As a result, many of the middle class medium-sized business owners who have fled to Turkey and Europe are growing impatient and are selling their properties and businesses in Aleppo. Labor, industry, and capital have also been largely displaced - both internally and externally - thereby depriving Aleppo of many of the elements that once made it a formidable economic hub.¹⁰²





Figure 7.3: Percentage of neighbourhood services damaged



According to the Syrian Center for Policy Research, Aleppo's economy had lost \$65 billion as of the start of 2017.¹⁰³ The macro-level Aleppine economy and Aleppo's role as an economic and trade artery remains drastically impacted largely due to current conflict and political conditions in northern Syria. Aleppo's primary road linkages to Damascus and A'zaz is the M5 highway, a large component of which (both to the north and the south) falls under armed opposition control; consequently, Aleppo's only linkage to Damascus is the two-lane Khanaser road, which is 125 km longer than the M5 highway. While trade does take place between opposition-controlled northern Aleppo(and thus Turkey) and the City of Aleppo, it is more expensive and less collectively beneficial than prior to the conflict.¹⁰⁴

The micro-level Aleppo economy has also been drastically impacted by the conflict, even after the Government of Syria took control of the city in 2016. Many of the former working-class neighbourhoods of eastern Aleppo are extremely damaged, and individuals have been unable or unwilling to return to these neighbourhoods. This is equally true for much of the Aleppo middle and upper class. Additionally, there are now numerous militias still active in the city, hindering commerce and increasing insecurity by threatening workers and looting properties. By 2015, at the height of the conflict in the city, the unemployment rate in Aleppo was thought to be 73.8 percent. In 2017, it was estimated that just 38 percent of labor was in the private sector, and the total number of working persons dropped to less than 140,000, of which, 56 percent are employed by the public services.¹⁰⁵ Female labor market participation is at an all time low. Working age men are afraid of engaging in public or private sector employment for fear of being consripted or arrested. Consequently the male labour force participation rate is extremely low.¹⁰⁶

Consequently, the City of Aleppo has now transformed from an industrial and trade based economy to an aid-dependent, consumption-led economy controlled by influential businessmen and families, many linked to security forces or informal military groups.¹⁰⁷ The economy is dependent on three main revenue streams, none of which are the result of creation of wealth. These include: 1.) the savings of the city's wealthy residents who remain in the west of the city. For those with access to funds, it's still cheaper to maintain a reasonable living standard in Aleppo than in Beirut or further afield; 2.) humanitarian aid which is bringing in resources; and, 3.) remittances from the diaspora family and friends elsewhere in Syria and abroad.¹⁰⁸ An estimated 1.5 billion USD a year is entering Syria annually in remittances from abroad, of which around 15-20 percent is directed to the City of Aleppo.¹⁰⁹ Additionally, new economic actors are emerging on the scene importing goods to the city. Sourcing and transporting basic commodities, including a reasonable amount of goods from Turkey and Lebanon, and agricultural products from the hinterland such as olive oil from Afrin, is creating a new class of gatekeepers. These actors are connected with the militias in the city, who they depend on for access.¹¹⁰

The central government originally pledged 9 billion Syrian pounds for the Aleppo municipal budget for 2019, but after disputes between the central and regional government, only 2-3 billion SYP (3BN SYP = 5.874M) was forthcoming.^{III} This figure represents a tiny fraction of the funds required to maintain the city, let alone to reconstruct it. For this reason, the municipal government and public spending will not represent an influential component of economic recovery or spending in Aleppo.

It is likely that Aleppo will undergo a complete transformation of its political economy as industry is unlikely to be a key driver of production in the near to medium term, while services have dropped to a minimum in the city. Initial indications suggest that the master-planning process for Aleppo will focus on the old city and the commercial centre immediately to the west of that area. However, there remains a lack of urgency or decisiveness in the government's approach to Aleppo. With the east of the city remaining in ruins and no encouragement to return of the population comprising the city's labourforce - nor any attempts to ensure the security situation enables production - there is little indication of the central government's desire to re-establish Aleppo as an industrial centre or economic powerhouse. Without access to trading routes to the north and into Turkey, there remains little likelihood that access to markets for larger scale manufacturing would be forthcoming in any case. However, Aleppo houses a population of nearly over one and a half million people and an attempt to reconfigure the economy to enable them to create sustainable livelihoods is essential.

War economy

Demographics of traders within the city have changed substantially over the course of the conflict. Almost all large-scale businesses have either left the city or severely constricted their sale and production, while medium and small-scale businesses took the heaviest toll and yet they are now dominating the marketplace. During the conflict, traders within the city had to pay government militias to accompany and safeguard their shipments outside and inside the city. Military checkpoints are still predominant across trading routes and usually incur additional costs in the form of bribes primarily for facilitating their passage. This has enabled a new business class of merchants who smuggle goods in through their relationships with the militias.¹¹²

According to local sources, some individuals have taken advantage of the poor economic conditions in the city and formed agreements with petrol stations to capitalize on the low supply of fuel and gas by doubling the selling price to locals. This was the case especially during the winter and spring season when demand is at its highest and supply at its lowest. These illicit activities, as reported by local sources, became more common and further established the existence of a black market in the city which not only sold oil-based products but also nutritional commodities.¹¹³ ¹¹⁴ Currently, the city's residents are experiencing severe gas shortages. Supply is constricted and public distribution centres are overwhelmed with long lines, in which customers are forced to stand for hours to purchase a tank of gas. According to local sources, the current subsidized price for 1 litre of gas is a little under \$3.6 while black market prices reach to \$18/litre. As the fuel crisis worsens residents have dramatically reduced their vehicle use.¹¹⁵ (see: profile section 13 "Transportation")

Throughout the conflict, government-aligned militia and SAA forces have benefited from extractive financial systems born of the war economy. Profit on sieges and looting of properties have been common throughout. As these revenue streams have dried up, other systems have been brought into play. Local sources report that militias frequently attempt to 'conscript' fighting aged men who have military service exemptions, in order to solicit payments for their release. Some business owners are proactively paying off the militias to protect their workers from the racketeering enterprises of the militias.¹¹⁶

Small Businesses

While the larger industrial sector in Aleppo has been slow to recover, the small business sector has been quicker to begin to flourish. With transportation and access issues continuing across the city, the insecurity of industrial premises, and the lack of manpower in the city, underpinning the sluggish industrial sector, small businesses are countering these issues and are providing goods and services at a small scale and a local level across accessible areas of the city. Indeed, even when some basic services were restored to the damaged industrial areas, larger businesses that tried to reopen found that they were looted overnight. Others have suffered from a lack of availability of parts for machinery, a lack of labor, the impracticality of irregular and unregulated electricity supply, the high cost of fuel to run generators, and a lack of domestic and foreign markets to sell goods into.

Smaller businesses however are offering more immediate services, such as workshops, stalls, and garages. They have cropped up within residential areas where there is a higher population density and potential customers do not have to travel to seek their services. The communal security provided by proximity to the local residential populations is allowing these smaller businesses to remain functional.¹¹⁷ Additionally, small businesses offering food items, fruit and vegetables, spices, and other day to goods are popping up a cross the city to service their local environments.

As for the ancient city of Aleppo, some traders have gradually returned to rebuild and open their shops while others await for government support to be able to afford costs of reconstruction. The UNDP has been supporting the refurbishment and repair of small market shops in the Old City,¹¹⁸ though local sources report that this process has involved expropriating stores previously owned or operated by individuals believed to have been "opposition supporting."¹¹⁹

Markets

After years of inactivity, the city of Aleppo's markets have made a relative comeback in the past two years following the end of the siege in 2016. According to local sources, the Telal market has re-established its presence as did Al 'Abara central market, both of which are selling ready-to-wear clothes and textiles. Al Sha'ar market, which sells fruits and vegetables, has also resumed its activity following the restoration of its main street and the return of most of its inhabitants. Al Jamiliyeh market for fruits, vegetables, clothes, household supplies, electronic products including laptops, cameras and other imported products, is bustling with shops. Al Haal wholesale agriculture market which was located near the ancient city and Bustan Al Qasr, the "death crossing" that divided East and West Aleppo during the siege, has been temporarily repositioned to Al Hamdaniyeh neighbourhood.¹²⁰

Figure 7.4: Community focal point perceptions of neighbourhood markets (CFP interviews, Jan. 2019)

	Agree	Disagree	l don't know	Neutral	Strongly agree	Strongly Disagree
Food available in the nearest market is good quality	75%	1 <mark>5</mark> %		• 4%	•3%	•2%
The nearest market facilities are maintained periodically	32%	449	•2%	• 1%	0%	19%
The city markets are thriving and creating jobs	<mark>46</mark> %	29%	•4%	•4%	0%	17%

New marketplaces have opened in previously residential neighbourhoods such as Fourqan and Halab al Jdeideh. Some neighbourhoods in the eastern parts of the city have witnessed the return of residents and markets. As for the Ancient City of Aleppo, some traders have gradually returned to rebuild and open their shops, while others await for government support to be able to afford the cost of reconstruction.¹²¹

Agriculture

While some agriculture occurs in peri-urban areas of Aleppo city, such as the eastern outskirts,¹²² it only accounts for 3% of urban employment. The vast majority of agricultural production occurs across rural Aleppo, particularly in northeast and southwest (see map 7.2). Perennial crops include cotton, olives, pistachios, and fruit, while annual crops include vegetables and cash crops, such as wheat and barley.

The decrease in agricultural production in Aleppo is attributable to both pre-conflict and conflict-related trends. In the 1990s, Turkey launched the Southeastern Anatolia Project (GAP) to boost agricultural production and stimulate economic growth. The project involved the construction of dams, hydropower plants, and irrigation networks using water from the Euphrates and Tigris.¹²³ Svria initially benefited from the GAP by obtaining a greater share of water, which boosted agricultural production in Aleppo governorate and other parts of northern Syria. The government's General Establishment for Cereal Processing and Trade (HOBOOB) provided massive agricultural subsidies to incentivize wheat and barley production throughout the country, including Aleppo. These included seeds, subsidized fertilizers, insecticides and machinery, as well as financial services and agricultural guidance. In total, agricultural subsidies amounted to 3% of GDP.124

Figure 7.5:NDVI-Representation and impact on the region's agriculture



Prior to 2011, Syria had become self-sufficient in wheat and barley (as well as other agricultural staples), allowing the GoS to provide subsidized bread nationwide and mitigate the impact of Western sanctions.¹²⁵ However, the GAP only benefited Syria as long as Turkey allowed it to receive a surplus of water downstream. The depletion of water tables upstream in Turkey coincided with the

Figure 7.6: Vegetated canopy in the Aleppo region

2008 drought ¹²⁶ and the application of the free-trade agreement with Turkey, ¹²⁷ which collectively caused severe damage to the agricultural industry in Aleppo and elsewhere. The inequitable division of water resources between Turkey and Syria has been an enduring theme throughout the conflict. Syria's water issues have been aggravated by climate change. In Aleppo, irregular weather patterns have led to great variation in harvests. In late 2016 and early 2017, Aleppo experienced around 38% less rainfall and 20% less vegetation as measure by NDVI, ¹²⁸ while in late 2018 and early 2019 it experienced record rainfall, leading to the widespread destruction of wheat and barley.¹²⁹

The war has also directly impacted agriculture in Aleppo. Irrigation-related infrastructure, both primary and secondary networks, have been severely damaged or destroyed due to conflict. As of 2017, the FAO estimated the damage to agriculture-related infrastructure, assets, and irrigation in Aleppo governorate to be at over \$500 million USD.¹³⁰ Perhaps most important of all, irrigation channels have stopped functioning due to lack of maintenance, which was a free service provided by the government prior to the conflict.¹³¹



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Livestock and perennial crops have also been severely damaged or destroyed. Damage to tree plantations for fruit and nuts accounts for a large share of agricultural losses, while the loss of annual crops is estimated at over \$550 million USD.¹³²

Decreased agricultural production is also associated with the high cost or unavailability of inputs, such as fuel, fertilizer, insecticides, and seeds, which were previously subsidized by the government. Due to a combination of these factors, there has been a significant reduction in cultivation, with an 18.5% reduction in irrigated lands since the conflict began.¹³³ Ongoing conflict and territorial fragmentation will perpetuate this decline. Aleppo governorate remains fragmented into multiple areas of control, with swathes of northern and western Aleppo under Euphrates Shield control and pockets under YPG control. This has had consequences for access, as control lines often cut across agricultural lands, as well as for trade (see map 7.2). While cross-line trade occurs, the higher transportation costs associated with elevated risk and checkpoint fees, increases the production costs. Moreover, ISIL continues to be a destabilizing actor, despite its territorial losses. In summer 2019, swathes of agricultural land in eastern rural Aleppo were burned. As in other parts of northern Syria, ISIL claimed credit for several of the arson attacks.¹³⁴

Map 7.2: Irrigated and rainfed crops versus areas of control in Aleppo Governorate



Labor Supply

Urbanization, which peaked in the 1970s and early 1980s,¹³⁵ combined with the 2008 drought, reduced Aleppo's agricultural labor supply prior to the conflict. Since 2012, the labor supply has been further depleted by migration, death, and recruitment by armed actors. ¹³⁶Under ISIL, women were banned from working in the fields when swaths of eastern Aleppo were under its control. Ongoing security risks have continued to limit female participation in agriculture. Women and men alike are often unable to access their fields due to ERWs and control lines that cut across agricultural lands.

Sectoral considerations

- Ensure that small scale, localized services and producers are the focus of economic recovery. This may include handicraft production, service industries and other consumer-based businesses.
- Any economic recovery programs should keep in mind that residents (and customers) have dramatically reduced their use of vehicles due to fuel prices. Programming for livelihoods and localized economic development should consider areas close to residential populations in order to limit transportation requirements and safety risks.

- Note that humanitarian programming, purchasing, and employment, represents a significant portion of Aleppo's economy, making the sector an influential economic actor. Careful due diligence should be employed in order to limit risks of destabilization.
- Investment in catalytic programming in key industries including secondary processing facilities in agriculture. Ensure that supports for local industrial manufacturing should be provided if and when the security situation enables it.
- Ensure that programming takes into consideration the significant conflict-related social cleavages. Programs should support linkages (economic and social) between divided communities by focusing on commercial arteries and mutually beneficial relationships.

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8. Health

Overview

Aleppo's healthcare system includes both private and public providers.¹³⁷ Prior to 2011, most neighbourhoods in Aleppo had at least one facility providing services. However, the western and eastern portions of the city have historically received vastly different levels of basic services. Indeed, most private hospitals and clinics were located in western parts of the city, including the Midan, Salah al Deen and Deif al Dawleh neighbourhoods.¹³⁸ Public services in the eastern neighbourhoods, and throughout Aleppo's informal settlements, have been generally poor.¹³⁹ This was especially true during these settlements' initial stages of development. Many informal neighbourhoods received inadequate public health services even prior to the beginning of conflict.¹⁴⁰ As some areas were only served by private providers, affordability has been a major concern by residents. After 2011, the most of the community began to rely on public hospitals located in and around Aleppo University.¹⁴¹

Health services affected by the conflict

As conflict erupted and eastern neighbourhoods fell under opposition control, the GoS reportedly fired mortar shells and rockets into the area indiscriminately. Physicians for Human Rights have reported that civilian spaces and hospital were targets of these attacks. This was further exacerbated during GoS assaults on Aleppo.¹⁴² According to reporting, approximately 63 percent of the city's total health facilities suffered some type of damage.¹⁴³ A shortage of physicians, lack of medications and medical equipment have exasperated the city's suffering.¹⁴⁴

While the city was besieged, estimates suggest more than 250,000 people were affected by a lack of supplies, including food, medicine, water and fuel.¹⁴⁵ At that time, all eastern neighbourhood hospitals were either non, or minimally, functioning. Hospitals in western neighbourhoods were inundated, receiving patient numbers beyond their capacity.¹⁴⁶

Figure 8.1: Healthcare challenges faced by people in the past month (January 2019)

	Primary Challenge	Second main challenge	Third main challenge
Health care services are expensive	104	60	47
Lack of adapted services for persons with specific needs	• 5	• 1	• 1
Lack of ambulance service	28	23	12
Lack of female staff	6	4	• 2
Lack of health personnel or staff	5	4	• 4
Lack of premature birth services	• 1		
Lack of reliable medicines	• 3	• 3	• 2
Lack of transportation	19	19	14
Long distance to reach a functioning facility	• 1	12	• 7
No health facility available		12	6
Trip is time consuming	• 2	• 2	• 1
Other	19		

Attacking health infrastructure and personnel in Aleppo

Despite UN Security Council Resolution 2286 (May 2016), which condemned attacks on medical facilities and medical personnel worldwide, strikes on hospitals and medical centres in the city of Aleppo continued that year. A UN Human Rights Council inquiry in February 2016 claimed that only ten out of 33 hospitals remained functioning in the city of Aleppo. This enguiry was published before the last hospital in Eastern Aleppo had been bombed later that year. Some strikes allegedly targeted hospitals, including Al Quds Hospital in Sukkari district, clinics in Marja district, and Baghdad hospital in Hreitan.¹⁴⁷,¹⁴⁸ Due to active fighting and bombardment during the time when Aleppo was under opposition control, some hospitals resorted to operating underground to avoid casualties and damage, as well as to protect patients and staff.¹⁴⁹ The AI Sakhour Hospital (known as M10) in eastern Aleppo was opened in February 2013 and moved underground in 2014.¹⁵⁰ The hospital, supported by the Syrian American Medical Society (SAMS), was the only trauma centre in North east Aleppo when it opened. To move the hospital underground, tunnels were dug to connect various components, while the ground floors were kept serving as protection measures. The hospital was bombed 22 times. In October 2016 alone, the hospital suffered five attacks which led to the killing of three maintenance workers and damage to the entrance of the building. Another attack happened two weeks later when the decision was made to shut down the facility, as reconstruction was taking too long compared to the frequency of air strikes.

Current health needs in the community

In 2018, the U.N. estimates that 697,850 people were classified as "people in need" of health care services in the city.¹⁵¹ Residents report a variety of health care challenges with the primary challenge being affordability (**see:** *8.2 Main Healthcare challenges*). Other challenges include access to quality medicines as a health risk¹⁵², including transportation and other mobility restrictions which affect the variety and quality of medicines locally available. There is also a critical lack of doctors and medical experts available to serve the city's residents. It has been reported that many have immigrated outside the country. The most prevalent ailments reported in the past six months by key informants are respiratory diseases , followed by urticaria and measles.¹⁵³

Figure 8.2: Main challenges faced in accessing medication in the past month (CFP Interviews, Jan. 2019)





Figure 8.3: Al-Sabil Surgical Specialist Hospital Non-operational private hospital in the Nile Street Neighborhood (W. Aleppo)

Table 8.1: Health care interventions

Service Type	Location of services	Implementing organization(s)
Mobile clinics	Citywide	Local organizations with international support
Ambulance services	Citywide	The Red Crescent
Awareness campaigns for reproductive health	Citywide	Local organizations
Management of hospitals and health centres, blood banks, rehabilitation centres, mobile clinics, and ambulances.	Citywide	Local authorities, local NGOs, charities and humanitarian organizations such as the Red Crescent
A national polio vaccine campaign targeting children	Citywide	МоН
Early detection of breast cancer campaigns targeting women,	Citywide	МоН
Rehabilitation of damaged clinics	Bustan Al Kasir neighborhood	МоН
Rehabilitation of juvenile host centres	Al Sabi' Bahrat neighbourhood	МоН
Field surveys on communicable diseases	Citywide	МоН
UNRWA-sponsored project targeting support for Palestinian refugees	UNRWA areas	UNRWA
Rehabilitation works had been completed at the Saad Ibn Abi Waqas health centre	Eastern Aleppo	WHO
Reopening of the only tuberculosis control centre in Aleppo governorate which was previously shut down in 2016 due to substantial damage	Governorate-wide. Located in the Ma'asaraniyeh Youth Housing neighborhood	WHO

Current health interventions

Following the recapture of Aleppo by the GoS and the halt of hostilities, eastern Aleppo once again became accessible for humanitarian organizations on a limited basis. Rehabilitation works on medical facilities by local NGO's and their international partners began in January 2017.¹⁵⁴

According to local sources, a variety of health facilities and services are currently being operated by local authorities, local NGOs, charities and humanitarian organizations such as the SARC.¹⁵⁵ Their activities include management of hospitals and health centres, blood banks¹⁵⁶, rehabilitation centres, mobile clinics, and ambulances.

Other services include ongoing vaccination campaigns and reproductive health awareness programmes for women. Delivery of health services are reportedly concentrated in the areas near Aleppo University, the Al-Kawakibi neighbourhood and the City Centre.¹⁵⁷

A number of projects are currently being carried out by the GoS across the city include a national polio vaccine campaign targeting children, early detection of breast cancer campaigns targeting women, rehabilitation of damaged clinics (Bustan Al Kasir neighborhood), rehabilitation of juvenile host centres (Al Sabi' Bahrat neighbourhood), as well as field surveys on communicable diseases.¹⁵⁸

Over the past two years, other initiatives have also been implemented. Including an UNRWA-sponsored project targeting support for Palestinian refugees.¹⁵⁹ Armenia has also recently deployed a team of 83 specialists to the city. Specialists include de-mining experts, health personnel and security officers. According to the report, the logistics of the deployment have been facilitated by Russia.¹⁶⁰

Despite most eastern neighbourhoods lacking health services,¹⁶¹ the World Health Organization (WHO) reports that rehabilitation works have been completed at the Saad Ibn Abi Waqas health centre. This was the first rehabilitated facility since the cessation of hostilities.¹⁶² In September, 2018, the WHO also announced the reopening of the governorate's only tuberculosis control centre.¹⁶³

Health infrastructure

While many health facilities are still not fully functioning, they remain amongst the only available public hospitals and health centres in the governorate. During the siege of 2014, reports of spreading skin diseases and cases of lice and scabies were noted.¹⁶⁴ Access to health care during the siege was severely disrupted not only due to the destruction of facilities, but also due to water shortages and the fact that potential patients feared leaving their houses to receive treatment.

Prior to the conflict, some informal areas, such as the As-Sukkari neighbourhood, received health services from the Ministry of Health.¹⁶⁵ In the city's southern zone, the Al Ahiaa Al-Janoubeyeh clinic and one of three clinics in Ansari Village are the only services described as providing adequate services, especially for children.¹⁶⁶ The UNRWA administered Al Neirab Camp has also been reported to provide adequate quality of basic health and education services to residents. Although, these informal neighbourhoods face public health risks due to high levels of pollution, inadequate waste collection and sewerage systems.¹⁶⁷

Figure 8.4: Damage to health care facilities by type (Asset survey, Jan. 2019)

	Destroyed	Partially damaged	No damage	Total
Blood bank	1 100%			1
Central pharmacies (trade union)			2 100%	2
Dispensary	3 21%	<mark>2</mark> 14%	9 64%	14
Hospital (Unknown)	3 50%	3 50%		6
Medical Center (comprehensive)		1 7%	13 93%	14
Medical Training Cent medical institute	er\ 2 50%	<mark>2</mark> 50%		4
Private Hospital	2 4%	7 15%	38 81%	47
Public Hospital	6 33%	2 11%	10 56%	18
Specialized Medical Center	3 15%	2 10%	15 75%	20
Total	20	19	87	126

ALEPPO **HEALTH**

Map 8.1: Distribution of health vulnerable population groups and the state of health infrastructure



Figure 8.5: Time needed for patient to travel to the nearest operational health care facility (average time in minutes) (CFP interviews, Jan. 2019)



Operational Capacity

The reported number of hospital beds pre-conflict varies from 3,000 to close to 4,500. This represents 0.6 – 1.0 hospital beds per 1,000 people. ¹⁶⁸, ¹⁶⁹ Current reports indicate the ratio increasing to 1.5 beds, due to the decrease of population numbers and damage distribution.

The number of operational hospital beds have been reduced by 658 beds, a 22 percent decrease. In 2011, 3,061 hospital beds were distributed among eight public hospitals (945 beds) and 78 private (2,116) hospitals. In 2014, 22 neighbourhoods – roughly half of all neighborhoods–in eastern Aleppo were completely unserved. On the other hand, most of western Aleppo was served by both public facilities, charities and NGOs and by private service providers.¹⁷⁰

Figure 8.6: Per-capita bed capacity

Hospital beds per 1,000 of city population

	Pre-conflict (2010)	Current (2018)
Beds	1.0	1.5

Figure 8.7: Damage to hospitals in Aleppo

Al Quds hospital in East Al Ansari Neighborhood (#51)



National hospital in Magar Al-Anbiya'a Neighborhood (#74)



ALEPPO HEALTH

In 2016, no public hospitals were functioning in eastern Aleppo. 18 out of 21 primary health care centres were not functioning due to damage or lack of staff and medical supplies.¹⁷¹ Only 11 working ambulances were available to serve a population of roughly 250,000. According to MSF.¹⁷² At the same time, the Directorate of Health has 35 drivers and first aid providers. Additional limited emergency transportation services are available through volunteers and NGOs.

According to a survey of community assets conducted by UrbAN-S in January 2019, 18 public hospitals are located in the city of Aleppo. Of these, ten have been completely destroyed, two have been partially damaged, and six have been unscathed by fighting.¹⁷³ (see: figure - 8.4- Damage to health care facilities by type) Earlier reporting suggested that four public hospitals were partially functioning (i.e., shortage of staff, equipment, medicines, damage of the building) and one was nonfunctioning.¹⁷⁴ In 2017, Aleppo was served by an estimated 1,700 pharmacies.¹⁷⁵

Figure 8.8: Operational bed capacity

	Pre-conflict (2010)	ہے۔ Current (2018)
Public	945	1.032
Private	2.110	1.365
Overall	3.055	2.397

Medical Personnel

The estimated number of medical personnel pre-conflict in Aleppo varies wildly. Sources suggest that the number of doctors in 2011 ranged from 2,785 to $9,217^{176}$, with one source suggesting the number of pre-conflict physicians at 6,000.¹⁷⁷ The city was also believe to host up to 1,516 pharmacists.¹⁷⁸

However, by 2017, the number of doctors had fallen to 1,242.¹⁷⁹ Local sources suggest medical personnel has increased since 2017, though still remaining less than half of pre-conflict levels. With a ratio of 0.4 physicians per 1,000 people, the city is inadequately served.

Table 8.2: Medical staff and facilities¹⁸⁰

	Pre-conflict (Approx.)	Current (Approx.)
Doctors	10,000	4,000
Nurses	11,000 + 5,000 Midwives	7,000
Mobile clinics	25	42
Hospital beds	9,000	4,000
Ambulance cars	67	17

Medical supplies, equipment and materials

By 2014, 70 percent of Aleppo's pharmaceutical industry was interrupted.¹⁸¹ Adequate medical supplies have been challenged by a lack of access to the city. This is a phenomenon observed across Syria, as medicines and medical supplies are reported to be in severe shortage. These include cancer related medicines, tetanus vaccine, anesthetics, psychotropic medinas (i.e., antipsychotics, antidepressants), hepatitis vaccines and topical dermatological preparations.¹⁸²

Sectoral considerations

- Ensure that health facilities and healthcare services are appropriately available in Aleppo's eastern neighbourhoods. Prioritize areas of high population density with service levels as recommended by the World Health Organization (WHO). Health interventions should acknowledge historical inequities in service provision, especially as related to neighbourhoods characterized by informality and low-income residents.
- Ensure access by residents from eastern neighbourhoods to critical facilities and services as most healthcare services are presently available in western neighbourhoods.
- Support free and/or subsidized basic healthcare in order to ensure adequate services are available. This includes basic services such as childhood vaccinations, elder care and care for diabetes patients and others suffering from chronic diseases and disorders. The community currently suffers due to the high cost of healthcare relative to household incomes.
- Ensure that adequate medical personnel are available throughout the community. In the shortterm, steps can be taken to repatriate displaced, qualified healthcare workers. In the longer-term, education and training opportunities should be developed to graduate physicians, specialists, and a broadened network of health-care professionals and support.
- Support measures to secure supply-lines for medicines and medical equipment. Specialty, and high-quality, life-saving medicines are urgently needed to care for chronic disorders, conditions and diseases.

ALEPPO

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9. Education

Overview

Aleppo's education system has been severely impacted. Up to 50 percent of the city's education facilities have been partially or totally destroyed. All levels of education have been impacted. Over 200 school buildings have been damaged.¹⁸³ The United Nations estimates that 312,826 people are currently in need of education services.¹⁸⁴

During the siege, many schools were affected. Where available, classes continued at great risks to both students and the numerous NGO's administering education programmes. Locals report that entire schools were forced to relocate for safety .¹⁸⁵ Many families opted to flee to neighbouring countries and elsewhere in order to provide a quality education for their children.

At the beginning of the conflict, school attendance remained relatively high. Across Syria, the Ministry of Education reported that 72 percent of students continued to attend classes. However, as conflict escalated in Aleppo, education in the governorate nearly collapsed. Only six percent of students reported attending school in 2012.¹⁸⁶ The following year, the situation remained similar, with only about ten percent of school-aged children in the governorate in attendance.¹⁸⁷ In 2015, education was still in decline. Due to bombardments in eastern Aleppo, western areas began receiving large numbers of IDP's. ¹⁸⁸The resulting strain on services overwhelmed remaining facilities and staff. As IDP's continued to arrive, some schools resorted to double and triple shifts, while other facilities were converted to shelters.¹⁸⁹

Education services in the city currently suffers from shortages of teaching staff, materials and supplies. Many students have large gaps in their education, which will require them to make up for lost time.

When available, intermittent educational opportunities (eg. NGO-managed schools) may have not followed the requisite MoE curriculum. This will add to efforts required from providers to equip Aleppo's students, graduating them to nationally prescribed standards.

> "At some point and some places, it was just too dangerous to send your kids to school.When I was studying my last year in high school, we had to change the location of the school few times due to unsafe areas. My school wasn't that big and only two classes were moved to another location, with the teachers, in order to take the bakaloria; a very important exam which will allow us to go to university."

> > Displaced student from Aleppo now living in Amman, Jordan

Figure 9.1: Twenty-four classroom boys public elementary school in the Salheen Neighborhood (#92) School has been operating as a mixed elementary school due to increased demand. After restoration of partial damage, female students were transferred to the nearby Al-Takadum Al-Araby School.



Current education needs in the community

Figure 9.2: Community focal point perceptions of city education (CFP interviews, Jan. 2019)

	Strongly Agree	Agree	Disagree	Strongly Disagree	Unsure
In general, people have access to educational services	6%	73%	17%	• 1%	• 3%
In general, quality education is provided for students	• 1%	42%	45%	•7%	
In general, people are provided with reliable educational services	• 1%	43%	46%	● 4%	• 3%

Aleppo's school system has suffered dramatically over the course of years of fighting and displacement. Education in Aleppo, however, has historically underperformed. Event prior to the conflict, only 6.8 percent of residents over 15-years-old had attained a university or college degree.¹⁹⁰

Restoring and improving the community's education is an enormous task. Aleppo governorate currently contains the most school-aged children across all Syria, reaching almost 1 million children aged 5-17 years-old.¹⁹¹ In order to serve its students, several challenges currently face the community's education services. This Includes: Access: Access to school facilities continue to be challenged by the remains of debris and rubble from fighting. However, nearly 80 percent of community focal points currently report there is general access to education.¹⁹²

Safety: Risks to safety and security for staff and students remain. Reports indicate that some schools have not been fully decontaminated. Mines, unexploded ordinance and ERW continue to jeopardize school recovery.

IDP integration: Displacement of families and students throughout the community continues to present a challenge for service providers. Integration of displaced children has been difficult. There are reports of school segregation. Students of residents allowed to attend "first-shift" classes, while displaced families are allowed to attend the "second-shift" of the school day.¹⁹³

Missing education: Making up for lost time and gaps in education is a major issue and will have consequences for future generations.

2016 Rapid needs assessment

According to a rapid needs assessment undertaken in 2016, most student in Eastern Aleppo were unable to attend school. At the time of the assessment, several reasons were provided including all kinds of violence, fear, and the non-functionality of area schools.

In addition, two percent of key informants reported that students in Eastern Aleppo were learning outside of formal schools: either at home, mosques or other child friendly spaces.¹⁹⁴

Table 9.1: Key informant responses to the question of "main problems with sending and keeping your children (6 – 17 years) in school".

General violence – clashes, attacks, air strikes	94 % of respondents
Children being scared/distressed	85 % of respondents
Schools not functioning	28 % of respondents
Children are too hungry or thirsty to attend school	25 % of respondents
Children are sick / ill / Other	10 % of respondents

Source: Syria Relief Network, Rapid Needs Assessment, Aleppo City, 2016

Education policy Education services provision and state curriculum

Throughout the country, education has generally been a service provided by the central government's Ministry of Education (MoE). There has been little involvement, historically, from non-governmental organizations or the private sector. In 2007, 98 percent of all schools in Syria were public, while the remaining two percent were either private or administered by UNWRA in areas serving Palestinian refugees.¹⁹⁵

At the start of the conflict, the MoE remained the city's primary education provider. They would implement changes in the hope of alleviating financial and administrative pressure on parents, encouraging all students to attend school (see box 'MoE Regulation No. (1) 543/2053').¹⁹⁶

Education by area of control

Education services in the city of Aleppo have varied depending on area of control over the course of the conflict. While GoS-controlled areas followed official state curriculum and exam schedules, areas controlled by opposition forces often adopted different curriculum and/or altogether different educational modalities.¹⁹⁷

In 2015, UNICEF reported that in contested areas of the city, certain subjects from school curriculum had been removed. "Some subjects, such as national education and history, (were) removed because they (were) considered to be closely linked to the current Government."¹⁹⁸ They instead began to focus more so on Islamic teaching, including memorization of the Qur'an.

For students attending classes outside of governmentcontrolled areas, their qualifications may not be recognized by the Ministry of Education. This is especially problematic as the government resumes control of former rebel strongholds (**see** box – 'Requirements for exit examinations').

Requirements for exit examinations

In general, two standard exiting qualifications exist in the Syrian educational system. One at grade 9 and another at grade 12. Each require students to sit for an exam. Both qualifications are based on official MoE curriculum. They would generally not recognize education obtained outside of the state schools, posing further challenges to students enrolled with non-state education providers, including NGOs.¹⁹⁹

MoE regulation No. (1) 543/2053

With the start of the conflict and recognizing the need of displaced children, the MoE issued a Regulation No. (1)543/2053, 6 September 2012. This required schools to accept the children without uniforms and not to ask for stationery to be brought by students who could not afford it.²⁰⁰

The regulation also decreed that schools should accept IDP children without valid school. Alternatively, schools should perform a placement test to enrol students at the appropriate grade level. However, some schools still reportedly refused to enrol displaced children due to lack of records or lack of space.

Education infrastructure and operational capacity

The capacity of Aleppo's education system has been dramatically altered by the conflict. Prior to the conflict, 3,384 primary schools operated in Aleppo governorate, including 3,301 public schools, 72 private and 11 UNRWA administered schools.²⁰¹

The Ministry of Education reports that 70 percent of governorate facilities were damaged or destroyed. Hundreds were forced to shut down.²⁰² Less than half of governorate facilities are currently reported functional.²⁰³ By July 2014, 347 (out of approximately 520) schools in the city of Aleppo were not functional due to damage or due to use as shelters. Some schools were moved underground for protection reasons.²⁰⁴





Spatial analysis of facility functionality, population distribution and reporting of access by neighborhood representatives confirms that education services are primarily available in western neighborhoods. Central and eastern areas of the city face poor access, lack of facilities and a deficit of services available to school-aged population.



Figure 9.4: Operational status of education institutions (Asset survey, Jan. 2019)





UrbAN-S Portal - ealghisi@immap.org

Figure 9.5: Damage to education institutions

	estroyed	artially amaged	ot amaged	nknown tal
Male	ă		ZÖ	T
Basic Education (Grades from 1 to 9)	•5	9	15	29
General Secondary (Grades from 10 to 12)	• 4	8	18	30
Primary and Secondary School		• 1	16	17
Vocational School	• 2	• 3	6	11
🕴 Female				
Basic Education (Grades from 1 to 9)	• 2	• 2	11	15
General Secondary (Grades from 10 to 12)	•5	6	23	34
Primary and Secondary School	• 1	• 1	8	10
Vocational School		- 4	• 7	11
Unknown			• 1	1
Mixed gender				
Pre-K / Kindergarten	• 2	• 5	33	40
Pre-K / Kindergarten and Primary School			18	18
Pre-K / Kindergarten, Primary, and Secondary School	ý		8	8
Basic Education (Grades from 1 to 9)	25	65	90	180
Primary and Secondary School	• 1		• 7	8
General Secondary (Grades from 10 to 12)		• 2	• 6	8
Vocational School		• 1	• 3	4
University / College			• 2	2
Unknown			• 3	3
🗌 Unknown				
Basic Education (Grades from 1 to 9)	• 5	• 3	• 4	12
General Secondary (Grades from 10 to 12)	• 4	• 1	• 1	6
Primary and Secondary School	• 1	• 1		2
Vocational School	• 1	• 1		2
Unknown	43	- 4	16	• 3 66
Total	101	117	296	3

Capacity and enrolled students

Although only a third of student-age population remains in the city, the capacity of functional school facilities are unable to meet the needs of students. According to local sources, approximately 225,000 students are registered at the primary and secondary levels.²⁰⁵ However, with a population of school-aged children close to 597,000, the low enrollment rate may be a result of students attending 'non-government' schools, homeschooling, or not attending.

Like elsewhere in the country, schools must practice double (or triple) class shifts in order to serve all students.²⁰⁶ This mirrors efforts throughout the governorate and elsewhere to accommodate large numbers of children within a limited capacity. Double-shift schools will conduct classes from 8 a.m. to 11:30 a.m. and again from 12 p.m. to 3 p.m.²⁰⁷ Additional efforts are being undertaken to integrate two grades into one academic year.

Education services and delivery differed even prior to the conflict. The type of school students attended has varied whether one lived in western or eastern Aleppo. It has been reported that many informal neighborhoods historically received poor and inadequate services.²⁰⁸ These challenges have been further exacerbated due to the conflict, especially in areas decimated by government forces. In eastern portion of the city, only 15 percent of students are currently served by public facilities.²⁰⁹

Figure 9.6: School capacity deficit



* Total school capacity when operating two shifts (both pre-conflict and current)





Damage

The conflict has led to the damage of over 40 percent of all schools in the city. Twenty percent are totally destroyed.²¹⁰

School facilities in many eastern neighborhoods have been completely destroyed, leaving whole communities without access to formal education. Analysis indicates Eastern Aleppo experienced the highest damage levels across Syria. Reports allege that 49 schools were destroyed. Due to the lack of facilities, the number of students enrolled is estimated to reach 80 pupils per classroom.

(Non) functional facilities

35 percent of all educational facilities are not functioning . Key informant interviews suggest that education services are also currently not being provided in uninhabited areas throughout the city. This also includes some northwestern neighbourhoods, such as Al-Leramoon and Al-Rasafeh, which are currently un-served.

Figure 9.7: Destroyed schools in Aleppo



Vocational school at Al Amerriyah neighborhood (#8)







Elementary school in Salah Ad Deen neighborhood (#91) UrbAN-S Portal - ealghisi@immap.org



Interventions and restorative works to education infrastructure

Despite the difficult situation, efforts are underway by international organizations, local NGO's and the government to restore education in select neighborhoods. Local sources report that services are being provided (in some areas) at all levels of education. However, many neighborhoods remain un-or under-served.

Table 9.2: Education interventions by UN Agency bynumber of neighborhoods

UN Agency	School Rehabilitation (# of neighborhoods)	WASH & School Rehabilitation (# of neighborhoods)
UNICEF	11	3
UNDP	1	2
UNESCO	1	

The United Nations' presence in the city has helped to support education recovery in 18 neighborhoods. However, reports indicate that recovery work has been halted based on donor's requests to discontinue work with national line ministries, under which schools are included. (For more information on humanitarian response, see profile section "4W Analysis")

Rehabilitation works and programming has been conducted in some areas. These include:

• Restoration of damaged schools throughout the city, with a reported 130 schools restored as of late 2018. This includes UNHCR's support in the recovery of 100 schools and bringing them up to a standard of functionality.

Reports indicate, however, that 120 schools remain damaged .

• UNRWA supported project which ran for 18 months from 2016 to 2018 and included school rehabilitation, provision of school equipment and material, and summer learning activities. It also provided support to educational management, psychosocial support, trainings and awareness raising. In addition, other actors implementing programming in the city include:

Ministry of education

Current MoE projects are focusing on rehabilitating damaged primary and secondary schools, restructuring curriculums of primary schools, and providing training to local teachers.

Civil society and private providers

Civil society organizations and private education providers are actively serving neighborhoods and students in many areas of the city. In the past six months, certain education interventions carried out by non-governmental actors include:

Private vocational training programmes targeting both middle school and high school students.

- Programmes for alleviating senior illiteracy in Al-Ismailiyah neighbourhood.
- Private courses offered to university students and pre-med students in Furqan, Aleppo university campus, and Ash-Shahba neighbourhoods.
- Restoration of primary and secondary school facilities.
- Training programmes offered to primary school educators to support in curriculum development.

Education staffing, supplies and materials

As a result of the war, many qualified teachers left the country seeking better opportunities. The total number of registered teachers before the conflict in the City of Aleppo was estimated to around 105,000. In February 2019, local sources report an estimated 64,000 teachers currently working in the city.

A lack of teachers and staff limits the recovery of education services. Sources suggest that forced conscription into military service has been a major impediment to increased staffing. Low salaries offered to teachers was also noted as a recruitment barrier.

The city also lacks an effective system for distribution of educational supplies. Educators lack the appropriate amount of materials necessary. This continues to stifle the ability for schools to function adequately.

Sectoral considerations

- Take additional steps to address the concentration of damaged and non-functioning schools located in Eastern neighbourhoods. Response should prioritize adequate access and availability of education services in these locations.
- Further develop curriculum and relevant materials to expedite learning, which in return will support students in making up for lost time in their learning.
- Ensure that schools operated by private or nongovernmental organizations are recognized both nationally and internationally and offer curriculum which ensures student's ability to fulfill exit examination requirements. This includes tests and qualifications that support entry in to higher education or vocational training.
- Provide special support to students with significant learning gaps. This includes remedial education alternatives to make-up for missed schooling (including literacy programming). This may also include home education curriculum and community centres.
- Support advocacy efforts and community mobilization to reintegrate out of-school children into formal education.
- Develop vocational programmes and technical trainings, especially in the fields of construction, construction management, public administration and other management fields.
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10. Water and sanitation

Overview

Prior the conflict, the community relied on strong municipal management for its water and sanitation services. This was further complemented by private partnerships. When the conflict erupted, private sector involvement decreased and led to increased pressure on governmental institutions.²¹¹ At that time, 94 percent of the community was connected to the public water networks and used improved water sources. Reports indicate that over 90 percent of the city also used improved sanitation and was connected to public sewer.²¹²

As of January 2019, interviews with neighbourhood representatives indicated that over 90 percent of Aleppo's neighbourhoods continue to rely on the public water system for household use. (See *figure 10.1*). Although, the hours of daily supply varies. 49 percent of the city enjoys over six hours of network supply per day, while 35 percent receive between two to six hours of supply. 16 percent of neighborhood focal points report receiving less than two hours per day.²¹³

The city was often considered rich in water due to its proximity to Lake Assad. Average water consumption of 109 litres per capita per day (I/c/d) was just below the national average of 114 I/c/d. However , the water network's loss rate had been estimated at 41 percent, significantly higher than the national average of 33 percent.²¹⁴

According to local sources, current water demand is approximately 4,000 cubic meters of potable water per day. As this is unattainable, a rationing schedule is in place which constricts pumping to 7 to 12 hours per day.²¹⁵ Sources also indicate that potable water is being distributed in all neighborhoods, filling community reservoirs, which residents are then able to fill tanks and bottles.²¹⁶

Functionality of water and sanitation infrastructure

Map 10.1: Public water network (functionality and daily water supply) in Aleppo city (Jan. 2019)







Figure 10.1: Communities' main source of drinking water (CFP interviews, Jan. 2019)







During the conflict, two of the main water pumping stations (Suleiman Al-Hababi and Bab Al-Nayrab) were run by local authorities. This ensured that water provision continued to function, and population was served in both east and west Aleppo. From 2012 to 2016, the Aleppo Water Unit and General Management of services worked to ensure availability of fuel and technical parts.²¹⁷

The water infrastructure of Aleppo heavily depends on water provided through the pipeline from the Euphrates river, which provides 90 percent of the city's supply. ²¹⁸Water from Euphrates is treated at the Al Khafsah Water Treatment Plant then pumped onward to the city. At this stage, some pipelines divert the water to also serve neighbouring towns. Canals within Aleppo connect to the four main pumping stations.²¹⁹

During the siege, city residents often experienced irregular water supply due to its full dependence on one source, and parties to the conflict deliberately cut water supply (see box "Water as a weapon of war").²²⁰

The Khafsa Water Station was first captured by opposition forces in 2013, and then by ISIL militants in 2014 who cut water supply to Aleppo city for around two months.^{221,222} In November 2015 the AI Khafsah station was bombed by a Russian jet, cutting water supply to approximately 3.5 million people who directly depended on the station for daily needs.²²³ It was, however, not the damage itself, but repairment works which posed great difficulties, as the water treatment plant was located under ISIL control at that time. It was not untill 2017 that workers were able to access the site for repair, after the GoS restored the water supply to ISIL-controlled Al-Bab in exchange for access to Al-Khafsha water station.²²⁴ The water supply was restored following three months without water, making it the longest disruption in Aleppo.

Following the temporary closure of Al Khafsah water plant, residents resorted to reliance on water wells, both private and public. An assessment was conducted in February 2016 to check the safety of well water. The previous assessment, dating back to September 2015, had revealed biological contamination and high concentration of nitrates in well water, making it unsuitable for consumption. The new assessment conducted in 2016 focussed in 61 neighbourhoods of the eastern part of the city. Out of 61 tested samples, 97 percent were biologically contaminated with E. coli. 80 percent of wells tested were also contaminated with nitrates. Since there is no agricultural activity or animal cultivation, the probable contamination source is the sewerage network.²²⁵



Figure 10.2: AI Khafsah Water Treatment Plant

According to the rapid needs assessment of Aleppo in 2016, residents of eastern Aleppo were mainly relying on boreholes, paid water trucks, and network water as a third source; 70 percent of key informants reported having diarrhea, vomiting and fever from drinking water.²²⁶

Furthermore, as two of the main pumping stations are located in the eastern part of the city, they have been exposed to bombing, putting 1.8 million people at risk of no water access. As in the case of the Khafsa Water Station, technicians here as well were at times not able to access the site. The ICRC, along with a team of 150 trained volunteers, negotiated access in 2016 to the area and undertook essential works.²²⁷

In 2017, water infrastructure in Aleppo was reportedly functional. this included all critical stations such as Al Khafsa, Sulaiman Alhalabi, Bab Alnerab and Tishreen. However, given limited power supply, water was being pumped using backup generators, with high fuel cost.²²⁸

As of January 2019, water is being distributed two to three times a week to neighbourhoods. Residents are able to fill their tanks and drinking bottles.

Impediments to recovery

As reported by local sources, Impediments to the improvements in water services include:

- The huge financial cost of rehabilitating water stations, networks and reservoirs, some of which sustained major damages during armed clashes.
- Erosion of water networks in the Ancient City neighbourhoods of Aleppo. Results in large quantities of water loss.
- Maintenance costs to pumping stations in rural areas where electricity supply is minimal.²²⁹



Figure 10.3: Community water reservoir in the Sha'aar neighbourhood (#94,March, 2017) - AFP JOSEPH EID

Current interventions

Between 2013 and 2015, the International Committee of the Red Cross (ICRC) partnered with the Syrian Arab Red Crescent (SARC) in providing access to alternative sources of safe drinking water. The project coordinated with local community water boards to repair wells across the city. During initial stages of the project, the members reflected on how to inform community members about the location of new wells. Recognizing that printed maps might not serve in the long-term, the ICRC developed an online application which – through GPS-enabled mapping and social media – provided residents with the location of drinking water.²³⁰ Local sources state that plans for the development of new pumping stations and distribution lines are underway as announced by the Military Housing Establishment in Aleppo. Sources indicate that the government is also investing in water and sanitation infrastructure (see table 10.1)

Organizations under the UN umbrella are not implementing comprehensive reconstruction projects as their funding is restricted for such operations. They are currently only involved in delivering lifesaving assistance and protection, as well as "light rehabilitation", such as repairing water and sanitation networks and installing doors and windows.²³¹

Project type or name	neighbourhood)	Target group (beneficiaries)					
Rehabilitation of five pumping stations	Aleppo's eastern countryside	Returnees					
Rehabilitation of five pumping stations, a well and a high cement tank	Aleppo's southern countryside	Returnees					
Rehabilitation of two wells	Tal Rifaa't	IDPs					
Implementation of plan to provide alternative water sources in case of disconnection from Al-Khafsa Station, Aleppo's main station	City of Aleppo	Multiple					
Maintenance of water networks	The eastern part of the city of Aleppo and the eastern countryside	Returnees					
Maintenance of sanitation networks	Multiple neighbourhoods	Multiple					
Create a new drainage path for rainwater	Western neighbourhoods	Multiple					

Table 10.1: Current government-led water and sanitation infrastructure investments²³²

Damage

Figure 10.4: Damage to public network



In 2017, reports indicated that the Aleppo's main water stations remained technically functional. According to the U.N., critical water stations and sources at Al Khafsa, Suleiman Al-Hababi, Bab Al-Nayrab and Tishreen had not incurred damage beyond repair. However, given limited power supply, water was being pumped using backup generators, with high fuel cost.²³⁵ Current government repair and restoration efforts seek to provide water security, including access to emergency sources in the event of disconnection from the Al-Khasfa treatment facility (see Table 10.1).

Fighting in the region affected the city's water system throughout. Damage was inflicted on pumping stations, water towers and distribution networks. According to reports, water infrastructure was the target of attack by the rebels, the regime (via Russian air strikes), as well as ISIL. All sides were culpable in impacting access to drinking water, using damage to infrastructure as a weapon of war.²³³ While under siege, the network could be cut off for 10 to 15 days, and up to months at a time.²³⁴ Residents were forced to rely on water sourced from over 300 subterranean wells scattered throughout. In addition, shortages in electricity and fuel hindered the functionality of pumping and resulted in inefficient distribution.

Water as a weapon of war

Availability and access to water played a vital role in determining the vulnerability of certain communities during the conflict. Water services were heavily impacted by three main factors: 1.) shortages in electricity and fuel which delayed pumping, 2.) damage to distribution networks and towers, and 3.) inefficient distribution. In addition, different military forces controlled access and availability of water, using this as a weapon of control during the conflict.

The Khafsa water station (located approximately 75 kilometers east of Aleppo on the banks of Lake Assad) was first captured by opposition forces in 2013, and then by ISIS militants in 2014 who cut water supply to the city of Aleppo for around two months.²³⁶ ²³⁷, The Government of Syria recaptured the area in early 2017 and re-seized the water treatment and pumping stations. The station was repaired by government engineers, with the support of the Red Crescent which restored partial functionality.²³⁸ However, pumping from Khafsa station continues to be intermittent and unreliable due to power outages.²³⁹

Sanitation

The city's main facility for treating wastewater, Al Ramouseh Sewage Treatment Station, is reportedly undamaged, but is out of service as a result of the theft of pumps and cables.²⁴⁰,²⁴¹ Waste water entering the plant is currently being discharged, untreated, towards agricultural lands in the south-east of the city (Al-Ramousa).

Since 2017, a majority of households have had access to bathing facilities. However, IDPs and populations living in informal settlements, camps, and damaged buildings were more likely to report issues with accessing them.²⁴² Moreover, such households with little access to water reported reducing their consumption and modifying their hygiene practices, such decreasing showering and laundry frequency.²⁴³

In fact, during ongoing fighting, many would not shower for weeks because of lack of hot water, becoming a sanitation risk.

Humanitarian agencies such as UNICEF have supported vulnerable communities by distributing hygiene kits, promoting hygiene interventions and the management of water purification units, as well as installing WASH units in schools.²⁴⁴ These efforts have reduced incidence of lice, scabies and leishmaniasis.²⁴⁵

Sectoral considerations

- Recovery works to the network to include i.) Maintenance of pumping stations, buildings and storage tanks. ii.) Maintenance of pumping Motors and wells, pump motors, control panels, power transmission lines and the generators iii.) Boosting pumping pressure may be needed to accommodate the daily demand. Additional pumping may be necessary based on an updated system design and change in the water head losses. iv.) Efforts needed to reduce water network loss rate. This can be accomplished through best practices in leakage prevention and water loss reduction.
- Ensure continuity of water access. Continue the development of secondary and emergency backup water sources in the case of future disruption. Piping diameter sizing need to be increased in order to meet required velocities and to satisfy demand.
- Ensure consistent energy sources and high-capacity generators to power water treatment and pumping facilities. This includes the Khasfa water treatment facility in the eastern countryside.
- Restore functionality to AI Ramouseh Sewage Treatment Station. Programming should include further site inspection to determine the extent of damage. (ie. Number of stolen / damaged pipes, valves, surfaces boxes, etc.)
- Remediate adverse environmental consequences of previous disposal of untreated sewage.
- Aleppo's sewer / drainage system needs maintenance. The city's pipes have been damaged and water quality has been affected (as evidenced by tests showing the presence of e.coli and nitrates). Rehabilitation and maintenance is needed at the city's treatment plant and sewer lines.

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11. Energy and electricity

Overview

Prior to the conflict, Aleppo's public electricity grid covered the entire community and adjacent peri-urban areas. The network, according to reports, provided 23 hours of electricity supply per day. In 2010, 98.7 percent of the community's residential areas were connected to the public electricity network²⁵⁵, ²⁵⁶.

Electricity was one of the most affected sectors during the conflict. Transfer stations, transmission lines, and generation plants all suffered extensive damage. This includes damage to the region's main thermal energy transmission plant.²⁵⁷ As power and distribution lines in the rural areas of Aleppo were damaged and disrupted, electricity supply within the city was severely cut. From October 2015 and through 2016, power outages became the norm. This was especially the case when different forces took over Aleppo city's power plants and utilized electricity as a weapon against the city's residents. Services were limited at times to four hours, or less, per day. According to one resident interviewed:

> "Living with little electricity was very hard. We broke things in our house to burn them as fuel. We only washed every 10 to 15 days. We couldn't put anything in the fridge, so we bought food and ate it straight away. We lived life day to day."

> > **BBC News Interview**²⁵⁸





According to local sources, the current grid coverage is limited to certain areas and neighbourhoods. These include most of western Aleppo, the eastern countryside, and handful of eastern neighbourhoods. Most eastern neighbourhoods remain disconnected. In these areas, where populated, residents have increasingly come to rely on other sources (**see** Map 11.1)²⁵⁹, ²⁶⁰. Mainly, a 'generator economy' has developed where residents now incur high costs, paying monthly subscriptions to private generator owners ²⁶¹,²⁶².

As the public utility power remains limited and partially functional, residents remain vulnerable to further abuse.



Figure 11.2: Night light in Aleppo city over the years showing a virtual blackout from 2013 – 2017²⁶³

Operational capacity

Map 11.1: Electrical power assets around Aleppo city, functionality²⁶⁴ of electrical grid, and daily electricity supply (Jan 2019)



Prior to the conflict, Aleppo's electrical network total capacity was reported to reach 1,850 megawatts²⁶⁵. However, current capacity is now less than half due to damage to generation plants, transmission lines and substations. Overall, the availability of electricity ranges dramatically amongst neighbourhoods. In some western neighbourhoods, grid power provides 6 to 15 hours of electricity per day – or sometimes more. This results in an average 12 hours of electrical availability throughout. It's also reported that rationing is in effect for 12 to 14 hours in areas with power. Some areas receive electricity on two-hour cycles, with blackouts occurring every two hours²⁶⁶.

In an attempt to cover city power needs, government providers are sourcing energy from the national grid linking governorates. Sources indicate that between 180 and 220 megawatts of power are currently provided via the 400 KVA line (kilo-volt-ampere) from the Al-Zirbeh power plant in Idleb²⁶⁷,²⁶⁸. However, current demand from both inhabited residential areas and industrial areas is reported as between 400 and 500 megawatts²⁶⁹. This gap continues to drive the market for private generators.

Energy and electricity management structure

Syria's public electrical services fall under the purview of several government agencies²⁷⁰. Both power generation and high voltage transmission is managed by Syria's central Ministry of Electricity. Maintenance and operations of medium and low voltage lines and transfer stations, as well as within the city, is the responsibility of the Aleppo Electricity Company. This historic structure – due to the damages sustained during the conflict- has been susceptible to the state's current inability to provide and distribute electricity. It also has severely affected other sectors. The community's water supply has been critically affected with inconsistent and inadequate energy to power pumping stations and primary treatment facility (see section 10 "Water and sanitation").

Aleppo Thermal Energy Plant

Located 25 kilometers east of the city, Aleppo's Kweires thermal energy power plant was commissioned in the late 1990's. As a modern facility, its reported production capacity exceeds 1,000 megawatts distributed on five generation units. As Syria's largest pre-conflict energy production plant, the facility sufficiently supported Aleppo and the region's energy, as well as nearly 20 percent of the entire country's energy needs.

Like other utilities, aggressors on all sides have used electricity as a weapon against the local community. Under the control of ISIL until the GoS's recapture in 2017, the plant suffered extensive damage. Over 50 percent of the facility has been reported deliberately sabotaged or looted. This includes its sophisticated control boards, technical systems and energy generation units. Local sources indicate that the plant is currently offline and out of service.

The plant's rehabilitation is critical for the region. As Syria's industrial capital, access to an affordable and stable energy source is vital for Aleppo's energy intensive industries. This includes its numerous textile manufacturers and raw material processing companies. However, rehabilitation works remain stifled. Damascus' main partners, Russia and Iran, have been unable to provide the necessary support. Media reports indicates that Syria's Ministry of Energy has been in negotiations with Iran's Minister of Energy for plant rehabilitation works. It was first reported that all five power generation units would be operational by June 2018. However, by October 2018, the plant was not yet repaired. Still, according to government announcements, repairs would commence "within a short timeframe". Aerial imagery from January 2019 confirms that no progress has been made. (See Figure 11.3) The GoS's inability to finance plant rehabilitation has stalled construction from moving forward. Sanctions imposed by western governments have also prohibited international companies from engaging with the GoS on reconstruction, limiting the pool of companies and partners with the capacity to assist.





Current interventions

According to local sources, electricity has been partially restored to a select number of neighbourhoods. Reports indicate that these neighbourhoods received up to 8-10 hours of service per day. The GoS has announced plans to rehabilitate the electricity sector, including constructing a new 230KV, 173 Km-long high-voltage line to serve the city²⁷¹. Reports also indicate that the government intends to prioritize rehabilitation of the Aleppo Thermal Power Plant.

Table 11.1: Current ongoing major government investment in energy infrastructure²⁷²

Project type or name	Location (area, city-wide, neighbourhood)	Target group (beneficiaries)						
Rehabilitation of electrical transfer centres linking the medium voltage line of the city	Eastern outskirts of Aleppo	Returnees						
Maintenance of high-to-medium voltage transfer stations in Al-Sakhour and Jibreen Stations	Eastern Aleppo and the eastern countryside	Multiple						
Maintenance of medium voltage transport lines mainly on the outskirts of eastern neighbourhoods	Eastern Aleppo	Multiple. Some maintenance activities occurring residential areas, but the returnees make up the largest group						

Sectoral considerations

- Long-term, incremental policies should contribute to the eventual rehabilitation and operations of Aleppo's thermal energy power plant. This is critical to the recovery of Aleppo's manufacturing industries, the bedrock of the local – and regional – economy²⁷³. As outlined, the national power grid has been severely impacted by the loss of Aleppo's thermal energy plant. The loss of its 1,000+ megawatts installed design capacity has had a dramatic effect on the regional and national economy.
- Prioritize rehabilitation work in Aleppo's heavily impacted eastern neighbourhoods. Functionality should be restored to the Al-Sakhour transformer (sub) station. Other neighbourhood (electrical network) facilities should be assessed for rehabilitated, including low voltage transmission (main)lines and residential and commercial service lines.
- Support investments in small-scale renewable energy. Consider programs which reduce dependency on diesel-fueled generators. Invest in programs which mitigate environmental consequences of using fossil fuels, reduce household costs and limit control of private generator leasing businesses.
- Develop long-term policies which may lead to sufficiently energize Aleppo's industrial zones and manufacturers²⁷⁴. Current sanctions on fuel imports restricts any opportunity to subsidize fuel. This could provide a short-term solution by providing low-cost fuel to power community generators to support industrial areas. Long-term, significant investments in regional energy facilities are required to restore industries' access to ample and affordable energy. However, due-diligence is needed to avoid cycles of corruption and enriching malicious local and international actors.

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- 256 "Report on Local Economic Development in Aleppo," Syrian-German Development Cooperatoin, 2010, http://www2.giz.de/wbf/4t-Dx9kw63gma/Rabenau_LED.pdf.
- 257 Prior to the conflict, reports indicate that 60% of Aleppo City relied on the Aleppo Thermal Power Plant for its energy. Source: "City Profile - Aleppo: Multi Sector Assessment," UN-Habitat, May 2014, https://unhabitat.org/city-profile-aleppo-multi-sector-assessment/.
- 258 "Syria from Space: Three cities in darkness and light," BBC, May 2017, https://www.bbc.co.uk/news/resources/idt-sh/syria_from_space_english.
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- 260 Interview with community focal point by UrbAN-S, January 2019.
- 261 "City Profile Aleppo: Multi Sector Assessment," UN-Habitat, May 2014, https://unhabitat.org/city-profile-aleppo-multi-sector-assessment/.
- 262 "The current presence of the generator subscription market is not monitored nor regulated by any regulation body, and thereforeruns the risk of corruption and hence increasing the prices past their market value. This could encourage further abuse of an alreadysusceptible population who depends on the electricity supply, which is already further disrupted by climbing fuel prices." Source: "Context Assessment: Aleppo," Mercy Corps HAT, February 2019.
- 263 "Syria from Space: Three cities in darkness and light," BBC, May 2017, https://www.bbc.co.uk/news/resources/idt-sh/syria_from_ space_english.
- 264 In the course of survey administration and data collection, field teams interviewed two (or more) neighbourhood representatives (or, "community focal points" (CFPs)). Responses were closed ended, permitting only a singular answer. There are instances where multiple CFP's responses varied. For example, one answered "Functioning" while another answered "Partially functioning". In cases where variation exists, the least functional option has been chosen to represent the subject neighbourhood. In the example noted, a"Partially functioning" designation would be used for visualization purposes.
- 265 "The Mobility of Displaced Syrians: An Economic and Social Analysis," The World Bank, February 6, 2019, https://www.worldbank.org/ en/country/syria/publication/the-mobility-of-displaced-syrians-an-economic-and-social-analysis.

266 Ibid.

- 267 Survey of key informant by UrbAN-S, February 2019.
- 268 "Operational Context Assessment: Aleppo City, Jebel Saman Sub-district," COAR, February 2019.
- 269 The demand calculation comes primarily from areas which Aleppo's electricity company staff can access (ie. governmental control areas) as well as the three industrial zones: Sheikh Najjar, Al-Kalasah, and Al-A'rkoub.
- 270 The energy sector in Syria was managed by two entities of the Public Establishment for Electricity (PEE): 1.) Generation and Transmission (PE-EGT) and Distribution and Exploitation of Electrical Energy (PE-DEEE). These agencies were responsible for transmission levels of 400-kV, 230-kV, 66-kV, 20-kV, and 0.4kV. Source: "The Mobility of Displaced Syrians: An Economic and Social Analysis," The World Bank, February 6, 2019, https://www.worldbank.org/en/country/syria/publication/the-mobility-of-displaced-syrians-an-economic-and-social-analysis.
- 271 Website could not be found. Leave citation as is.
- 272 Survey of key informant by UrbAN-S, February 2019.
- 273 Currently, international sanctions restrict international companies from supporting rehabilitation of Syria's energy assets.
- 274 Industrial areas include Sheikh Najjar, Al-A'rkoub, Al-Shokaief, Ar-Romouseh, and Jibreen.

12. Solid waste management

Overview

Generally, waste collection in Syria is administered by municipalities, with a few cities relying on private contractors in addition to publicly employed workers. Even prior to the conflict, nationally, the sector was in need of development. Most cities had open dumpsites located outside of the city. Only a few of them operated landfills.²⁷⁵

To address its solid waste management needs, a 'Master plan of waste management in Syrian Arab Republic" was commissioned by the Ministry of Local Administration in the 2000s for select cities throughout the country. The plan outlined recommendations for waste collection, treatment and disposal in many towns, including Aleppo. Much of the recommendations, however, had yet to be implemented at the onset of the conflict.

The construction of Aleppo's sanitary landfill was almost finished by the year 2000. At that time, a previous compost plant was decommissioned due to inefficiency.²⁷⁶ The master plan describes the main issues of Aleppo's landfill, including lack of space, lack of waterproofing, lack of monitoring as well as open fires releasing doxins and no treatment ofleachate.²⁷⁷

National and local solid waste management and stakeholders

Two central government agencies are responsible for development of the country's waste management strategy. They include the Higher Court for Environmental Safety and the Ministry of Local Administration and Environment.²⁷⁸ In the absence of overarching environmental policy, most matters have been administered through decrees. According to reports in 2000, a draft environmental bill was under review by parliament. The bill was expected to cover waste management among other areas. It would have been the first legislation of its kind in Syria.²⁷⁹ Environmental "Law 50" was issued in 2002 which established a regulatory framework. By 2009, implementation legislation had yet to be instituted.²⁸⁰

Prior to the conflict, Aleppo city's Sanitation Directorate (a department of the Health Affairs Directorate) was the primary solid waste management stakeholder. Accordingly, the Directorate was divided into divisions responsible for a particular areas. Some overlap occurred at times. For instance, vehicle management fell under both the "Cleansing" and "Vehicles" departments.²⁸¹

Fees were collected under the Financing Law No. 1(1994), providing both a "cleanliness fee" assessed on households and a service fee for commercial establishments. The law established minimum and maximum fee amounts.²⁸² Assessed fees, however, were often much lower that the total cost of solid waste management. In Aleppo, fees only recovered 41 percent of operating costs.²⁸³



Figure 12.1: Waste transfer station - Solid waste management plan - 2004

Solid waste management in Aleppo

In 2000, the average household waste generation in Aleppo was 0.46 kg/capita. A total of 840 tons of household waste were produced per day, in addition to 85 tons/ day of commercial waste, 200 tons/day of public facilities waste, and 250 tons of daily of industrial waste.²⁸⁴

Local sources report that a major solid waste crisis followed the end of the siege in 2016. In its aftermath, the municipality played a role in overseeing extensive efforts for the collection and disposal of waste. Waste is currently removed twice a week, and is transported to one of two landfills located outside of the city, in the Beni Zayd and Sheikh Said areas.²⁸⁵

Private sector

Aleppo was one of a few cities where the private sector participated in solid waste management. Contractors would undertake waste collection or transportation. Private sector contractors were responsible for 35 percent of street cleaning and solid waste collection. They were also responsible for transporting waste from the transfer station to the final disposal site and management of Aleppo's disposal site. In 2000, cleaning duties were performed by three contractors. This included 320 labourers and 100 tricycle motorcycles with drivers. At the dumping site the contractor was responsible for the operation of the site and was renting two dozen shovels with drivers to the city council.²⁸⁶



Figure 12.2: Yearly solid waste production in Aleppo (thousand tons)287

Hazardous Waste

Aleppo City was unique in Syria in its municipal handling separately hazardous waste collection.²⁸⁸ As Aleppo was Syria's industrial hub, it was also producing high amounts of industrial waste. In the past, hazardous waste would normally end up in open dumpsites, while liquid industrial waste could be found in sewage systems.²⁸⁹ It is estimated that Aleppo produced 15,350 tons per year of industrial hazardous waste and 550 tons per year of medical hazardous waste (**see** table 12.1).²⁸⁰

Informal settlements

Even prior to the conflict, solid waste management was a pressing issue in most of the informal settlements. For example, in the neighbourhood of Bani-Zaid, waste was often dumped into courtyards which also served as children's playground. Others practiced waste dumping on the outskirts of the settlements. Even those neighbourhoods with designated dumpsters were affected by poor solid waste management, as waste would not be collected in time.²⁹¹

As a result, residents were exposed to health risks. Leishmaniasis was a common disease observed in most of the informal settlements, and in fact it was spread so widely in Aleppo, that the disease was often called the "Aleppo boil".²⁹²

Figure 12.3: Destroyed Landfill in the Al-A'zamiyeh Neighborhood (#13) Waste transfer site in the Al-A'zamiyeh Neighbourhood (W. Aleppo). The site remains partially operational despite its destruction.



Operational capacity

During conflict

At the outset of the conflict, and once damage was inflicted on homes, structures and other facilities, the municipality was struck with the enormous task of rubble removal and debris management.²⁹³ Other needs were small in comparison.²⁹⁴ Even prior to the conflict, very limited resources were available nationally to manage construction waste.²⁹⁵

Governmental capacity to manage solid waste sharply decreased. Prior to the conflict, the city managed an estimated 150 trash collection vehicles. By 2014, only 50 were operational. Municipal staff also dramatically decreased from 2,350 to 500 workers in 2014.²⁹⁶

By 2014, the situation drastically varied in eastern and western parts of Aleppo. 70 percent of solid waste management in western neighbourhoods was administered by municipal staff. The remaining was administered by the private sector (15 percent), local initiatives (10 percent), and neighbourhoods committees (5 percent). In contrast, only 5 percent of management responsibility was provided by municipal staff in the eastern parts of the city. Neighbourhood committees provided up to 70 percent of services while the remaining 25 percent was covered by local initiatives. Furthermore, while only four neighbourhoods in Western Aleppo had no waste collection system in place, the same was true for 36 neighbourhoods in Eastern Aleppo.²⁹⁷ Several informal dumping sites in the outskirts of the city have been a cause of health concerns for the community members living in the areas. These sites were mainly in the neighborhoods of Hamadaniyeh, Blleramoon, Midan, Al- Sakhour, and Al-A'arqoub.²⁹⁸

In 2015, Eastern Aleppo's local council launched a campaign to remove solid waste from its neighborhoods. The program allocated resources and increased capacity for solid waste management. As official dump sites remained inaccessible, the community has continued to rely on twelve informal dump sites. Due to improper management, these sites continue to pose health concerns.²⁹⁹



Current interventions

As the government's capacity to handle solid waste management has decreased, others have filled the gap. In 2017, trash collection was being primarily managed by local councils and community members. All neighbourhoods are being served with trash collection in some form. Local sources indicate that waste removal occurs twice a week, and is deposited in the landfill outside of the city.³⁰⁰ ³⁰¹However, these sources suggest that areas south of the city are underserved.

As of 2017, the city contained an estimated 14.9 million tons of debris from the conflict. Municipal waste generation in Aleppo is estimated to be 649 tons/day, representing a 67 percent decrease from pre-conflict levels.³⁰²

 Table 12.1: Current major government water and sanitation infrastructure investments³⁰³

Project type or name	Location (area, city-wide, neighbourhood)	Target group (beneficiaries)						
Construction of a sub-landfill in the Beni Zayd area	Aleppo, the northern section	Different (IDPs, returnees and residents)						
Removal of all random landfills in the City of Aleppo and the transfer of waste to the regular ones	Aleppo, the eastern section	Returnees						

In addition to the government investments (table 9.1), several United Nations supported waste management and debris removal programmes were reported underway as of February 2019.³⁰⁴ These include:

- Supporting the municipality in covering the expenses of the workers who remove the waste from the neighbourhoods to the final landfill (UNDP)
- Providing 200-litre waste bins (UNDP)
- Supporting the Directorate of Antiquities in the collection of archaeological rubble in the Old City (UNDP and UNHABITAT)
- Supporting the municipality through provision of eight tipper trucks to remove waste, as well as support in the maintenance of the existing trucks. Supporting maintenance of water tanks belonging to the Water Corporation, the General Company for Sanitation and the Parks Division (UNCHR and UNICEF)

Figure 12.4: UNDP initiative on maintenance of garbage bins and solid waste removal equipment in Aleppo, UNDP Syria, 2017





Figure 12.5: Bulldozer removing rubble from damage of the old market in the old city of Aleppo, Jan. 2018 – AP Hassan Ammar

Environmental consequences of current waste management

According to local sources, one of the landfills currently used is located in Tall Al-Daman, in the southwestern countryside. The landfill was chosen due to its far distance from residential areas and agriculturally productive soils, its suitable geology and deep water table.³⁰⁵ However, local sources indicate that the location is in close proximity to the Aleppo's largest groundwater reservoir.³⁰⁶ According to sources, inadequate containment of waste has led to pollutants entering the water source, exposing the community to a high level of harmful elements. Experts suggest that a plan is necessary to relocate the landfill and address its harmful environmental effects.

Municipal staffing

According to reports, in 2000 there were 1,300 trash collection staff, 150 workshop workers and two engineers in the city's "Cleansing Department".³⁰⁷ While training and the capacity of municipal staff was generally low prior to the conflict, some MOLAE³⁰⁸ and city staff benefitted from solid waste management from the Mediterranean Environmental Technical Assistance Programme.³⁰⁹ In high-income districts of the city, there were an estimated 100 informal labourers. There were also an estimated 100 scavengers throughout the city seeking reusable items.³¹⁰

According to local sources, the city lacks enough resources to effectively manage its solid waste. Current resources include over 1,000 sanitation workers, 60 trash compressors, 30 compactors and 25 small vehicles for transporting waste.³¹¹

Sectoral considerations

- International partners, and the municipality should develop a plan to relocate the city's primary landfill to an appropriate location. An integrated solid waste management plan should be prepared considering all waste streams (including medical, construction and industrial) as well as mechanisms for recycling.
- Review and implement mitigation efforts to reverse environmental damage from the Tall Al-Daman landfill on the city's water source.
- International partners should prioritize training and capacity building of local solid waste managers and engineers. As responsibility of solid waste is subject to the type of local control in the various city districts, international partners should seek out the most appropriate partnerships for capacity building efforts.

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- 285 Survey of key informany by UrbAN-S, February 2018.
- 286 Blue Plan Regional Activity Centre, Policy and Institutional Assessment of Solid Waste Management in Five Countries, Cyprus, Egypt, Lebanon, Syria, Tunisia, 2000

287 Ibid.

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- 291 Fadi Hammal et al., "Settling with danger: conditions and health problems in perio-urban neighbourhoods in Aleppo, Syria," Environment and Urbanization 17, no. 113

292 Ibid.

- 293 Source: "The Mobility of Displaced Syrians: An Economic and Social Analysis," The World Bank, February 6, 2019, https://www.worldbank.org/en/country/syria/publication/the-mobility-of-displaced-syrians-an-economic-and-social-analysis.
- **294** For example, the need for industrial waste management became significantly reduced as industries ceased operations.
- 295 "The Mobility of Displaced Syrians: An Economic and Social Analysis," The World Bank, February 6, 2019, https://www.worldbank.org/ en/country/syria/publication/the-mobility-of-displaced-syrians-an-economic-and-social-analysis.
- 296 "City Profile Aleppo: Multi Sector Assessment," UN-Habitat, May 2014, https://unhabitat.org/city-profile-aleppo-multi-sector-assessment/.

297 Ibid.

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- 299 "City Profile Update Aleppo: Multi Sector Assessment," UN-Habitat, 2015.
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- 301 "The Mobility of Displaced Syrians: An Economic and Social Analysis," The World Bank, February 6, 2019, https://www.worldbank.org/ en/country/syria/publication/the-mobility-of-displaced-syrians-an-economic-and-social-analysis.
- 302 "The Toll of War: the Economic and Social Consequences of the Conflict in Syria," World Bank Group, 2017, https://www.ecoi.net/en/ document/1404878.html.
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304 Ibid.

305 "Master Plan of Waste Management in Syrian Arab Republic," MOLAE, July 2004.

306 Source: Survey of key informant by UrbAN-S, February 2019.

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13. Transportation

Overview

Aleppo, Syria's most populated city prior to the conflict, has always been well connected to the region and beyond. As the preeminent economic and manufacturing hub, the city is located at the crossroads of the country's three main highways: the M5, M4 and the Aleppo-Gaziantep highway.³¹² The city also hosts one of the country's only two civilian airports. Historically, the national rail line connected Aleppo in all directions; most notably to Syria's major urban hubs of Homs and Damascus. Prior to the conflict, Aleppo also enjoyed a well developed public transportation system. Transit services once reached all of the neighbourhoods as well as the surrounding countryside and neighbouring communities.

The conflict has damaged much of the city's transportation infrastructure and facilities. It is estimated that 75 percent of the street network in eastern Aleppo and 40 percent of streets in western neighbourhoods have been affected.³¹³ Restoring public transportation services has been especially difficult. According to local sources, the lack of population in eastern neighbourhoods makes restoration of public transit unfeasible.³¹⁴

Mobility

During the conflict, movement from one area to another was extremely limited. Only one crossing operated in the Bustan Al-Qaser neighbourhood. This passage way became the sole link between western and eastern Aleppo. Due to severe shortages of basic necessities in eastern Aleppo, the crossing was used by thousands of residents on a daily basis. However, by 2014, the highly contested crossing and buffer zones became the target of sniper shooting and fighting.³¹⁵ Community members were forced to risk their lives to access food, essential supplies and places of employment.³¹⁶

Mobility has improved since 2016, although movement continues to be restricted. Checkpoints are operated by various security actors. Some of these collect fees and, in certain neighbourhoods, some require an Aleppo ID. This limits the movement of migrants, returnees and residents not carrying the appropriate identification. Residents have reported fear of extortion and detention at checkpoints.³¹⁷

Highways

- Km

Highway 214 Transportation assets Bridge or tunnel 🚍) Belleramoun Admin office 9 Bus terminal Road 212 (Aleppo - Al Bab) 0 Train station Garage multiple a floor A X Civil airport 🖵) East 🖵)West Aleppo International **Functionality** Airport Motorway Al-Bukamal Highway Functioning Partially functioning 60 Aleppo – Idli Salgin Highy Not functioning No data M5 Ramouseh Daraa, Damascus Railway Aleppo Neighborhood El sham Road boundaries Unfinished Highway Junctior Street

Castillo Highway

Map 13.1: Transportation infrastructure in Aleppo

Gazi Ayntap Avenue

Source: Satellite imagery,

UrbAN-S field data collection

Date of Creation: 09 June. 2019



Figure 13.1: Line-ups for gasoline in Aleppo. April 2019 (Credit - Reuters - Omar Sanadiki)

Increase in fuel price creates hardship for Aleppo's residents

In December, 2018, media reports indicated that the city experienced a sudden increase in fuel price. Jumping from 185 to 285 SYP per litre, an increase of 35 percent. Shortages are reportedly leading to enormously long wait times. The report ascribed the price hike due to decreased petrol allocations from Damascus.³¹⁸ In February 2019, local sources suggested that the pricing had relatively softened to 224 SYP per litre of petrol and 300 SYP for a litre of diesel.³¹⁹ In April, sources began to report that cars were being rationed to 20 liters every five days due to wait times. Lines at stations ran around for several blocks, with drivers sleeping in their cars for several nights. Even after waiting, some would be turned away.³²⁰

If fuel remains high, coupled with low household incomes, residents will continue to struggle to make ends meet.

Transportation system

Roads and vehicles

Prior to the conflict, the Aleppo governorate reported the registration of 253,960 vehicles. This represents 62 vehicles per 1,000 inhabitants in the governorate.³²¹

Due to fighting, roads have been severely damaged. Craters in roadways have formed as a result of barrel bombing.³²² According to a report, 1,355 kilometers (58 percent) of the city's 2,330 kilometers of roads have been damaged.³²³ In addition, 7,027 meters of the city's bridges have been damaged, and 44 percent of the entire Governorate's roadways are damaged. The same report, however, notes that the situation is improving, where almost 1,800 kilometres of roads have benefitted from repairs or removal of debris.³²⁴

Public transportation

Prior to the conflict, numerous private transportation companies served the city with an estimated 2,300 omnibus public transportation vehicles and 15,000 registered taxis.³²⁵ Fares were regulated by both the Committee of the Union of Transport Workers and the Ministry of Transport.³²⁶

Buses were widely used, and the city enjoyed a sophisticated routing network. To reduce congestion within the city, the bus station was relocated in the mid 2000s to an area five kilometres outside of the city.³²⁷

Following the recapture of eastern Aleppo by GoS forces in 2016, bus routes were reopened from east to west Aleppo. The trip which used to take up to ten hours during the conflict, requiring indirect routing through the rural countryside, can now be completed in thirty minutes.³²⁸ Moreover, daily bus services have begun operating between Damascus and Aleppo.³²⁹

According to local sources, all districts are currently accessible by public transportation. However, this excludes areas of continued armed clashes.³³⁰ Sources indicate a continued insufficient number of public vehicles, buses and minibuses, to meet demand in some areas.³³¹

Rail network

Prior to the conflict, Aleppo's central Baghdad Railway Station provided numerous passenger connections to regional, national, and even some international destinations.

In the early-mid 2000s, the local commuter rail service had begun struggling to compete with inter-city buses offering a higher frequency of services with similar pricing.³³² Due to fighting and damage, the railway was closed in 2012.

In January 2017, a portion of Aleppo's rail was symbolically opened. The first intra-city section restored since the beginning of the conflict, four daily shuttles now operate from the Jibreen industrial area south east of Aleppo to the city's main train station. In the transport minister's announcement of the railway's symbolic reopening, it was suggested that "terrorist" activities have damaged - and are affecting the functionality of - the city's trainline³³³, ³³⁴.

Airport

Prior to the conflict, Aleppo's international airport was used by 13 airlines flying to 26 destinations, managing 1,136 passengers (arrivals and departures) on a daily basis.³³⁵ With a three kilometer runway, a small apron and a modest terminal building, the airport's capacity was limited.³³⁶ While it was a convenient option time-wise for those travelling from Aleppo, the airport could not compete with Damascus International Airport, which offered more international destinations.³³⁷

The airport was closed to passenger services in 2012. It is currently used by military helicopters, official visits, and for logistical purposes.³³⁸ While the Ministry of Transport reported in 2018 that the facility is almost ready for passenger services, it remains non-operational.³³⁹



Current interventions

A number of interventions have supported the recovery of transportation networks in Aleppo. In 2017, UNHABITAT and UNDP provided debris removal support along the city's main streets. These projects, however, have mainly targeted less damaged western neighbourhoods. Eastern neighbourhoods, according to recent reports, remain inaccessible due to damage, rubble and insecurity.³⁴⁰

Table 13.1: Current government investments related to transport infrastructure and services³⁴¹

Project type or name	Location (area, city-wide, neighbourhood)	Target group (beneficiaries)				
Activation of public transport lines	Eastern neighbourhoods	Residents of eastern neighbourhoods				
Maintenance of public transport buses	City-wide	All residents				
Installation of traffic lights	City-wide	All residents				
Activation of public transport lines	Eastern neighbourhoods	Residents of eastern neighbourhoods				
Maintenance of public transport buses	City-wide	All residents				
Cars importing ³⁴²	Exclusive for certain companies	Private car / taxi service				
Projects of cars assembling	City-wide	Private car / taxi service				

Sectoral considerations

- Continue to restore east-west connectivity, in the near term, by allocating resources for rubble removal within and along city streets. Priority focus should be in eastern neighbourhoods and along major commercial thoroughfares.
- Note: careful consideration should be made upon selection of rubble removal providers, so as not to enrich armed groups offering removal services.
- Prioritize restoration of critical transportation infrastructure including street surfacing, street lighting, directional paint, signage and other indicators. Public transit facilities should be planned for resources allocated, such as bus bulb-outs, stops, signs and benches. Sidewalks and other pedestrian amenities should also be designed and/ or redeveloped in conjunction with transportation improvements along major corridors.
- Support restoration of public transit and private transportation services through development of transit facilities, fuel subsidies and/or reduced commercial vehicle registration fees.

- As a long-term initiative, redevelopment of the rail network can support economic recovery and national connectivity. In the near term - and through an inclusive / community-led process - support should be provided to re-establish track sections within the urban and peri-urban areas. Local rail lines can be used to transport of people, products and disposal of bulk debris to designated processing and landfill sites.
- As a long-term initiative, rehabilitation of Aleppo's airport should be considered in conjunction with other economic development efforts. Re-opening Aleppo to Damascus services will cut down on security risks and long drive times. According to reports, driving currently takes up to 10 hours with stops at over 40 checkpoints.³⁴³
- Note: As international sanctions currently prohibit most carriers operating in the country, investments the airport's rehabilitation will be subject to international legal and governance requirements.

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14. Urban functionality index

Overview

The Urban Functionality Index is a measure to inform spatial prioritization for short, medium- and long-term interventions. While this tool presents a useful starting point for spatial analysis, it is limited in that it cannot identify specific kinds of interventions. It provides a snapshot of the functionality of essential services coupled with demographic dynamics on a neighborhood level in order to provide spatial comparisons. The index consists of the following three components:

- Functionality of essential services: provides a metric for the cumulative functionality of services essential for the neighborhoods' livability; namely WASH, solid waste management, electricity, markets, education, health, transportation and safety. The index considers functionality in terms of the community's perceived accessibility, reliability and quality of those services.
- **Population index:** provides a metric for the impact of the crisis on neighborhoods population. The index factors in all affected people who either stayed in, returned to or moved to cities in crisis. The tool considers neighborhood population relative to city population, IDPs and returnees population relative to neighborhood population, as well as resident population to neighborhood population.
- The response continuum: provides the starting point for short, medium- and long-term interventions. It offers three types of response strategies (see figures below displaying the proportional combination of services and demographics indices):

1.1 Relief-oriented response: emphasizes immediate humanitarian response and basic functions restorations. Interventions target caseloads and aims at alleviating hosting stressors.

Figure 14.1: Relief oriented response



1.2 Early recovery-oriented response: emphasizes medium term interventions to restore services functionality and infrastructure, with less emphasis on short-term basic needs.

Figure 14.2: Early recovery-oriented response



1.3 Recovery-oriented response: emphasizes long-term spatial interventions aiming at creating a conducive living environment.

Figure 14.3: Recovery-oriented response



The index adopts a three-point scale to weight each component, where zero (0) reflects the worst-case scenario - poor functionality if at all functional - hence, the overall neighborhood UFI score is derived from the cumulative score of the components. The score interpretation is shown in the table below:

Table 14.1: UFI Score with interpretation / indication

UFI Score	Interpretation/Indication
0.00 - 0.69	Poorly functional (if at all)
0.70 – 1.39	Partially functional
1.40 - 2.00	Functional

UrbAN-S Portal - ealghisi@immap.org

Functionality of essential services in Aleppo

Table12.2 shows how neighborhoods in Aleppo rate in the services index. 18 of Aleppo's 109 neighborhoods fall in the range of "poorly (if at all) functional". This is closely reflected in the "recovery" map below (**see:** *Map* 14.3). According to the index, all neighborhoods experiencing severe issues related to service functionality are located in the eastern portion of the city. As this area (East Aleppo) received more damage per hectare than anywhere in the country during the period of fighting, the index validates the situation on the ground.

Also alarming, the index suggests that 67 neighbourhoods, or 62 percent of the city, experiences services which are "Partially Functional". These neighbourhoods are located throughout the city. Only 13 (of 109) neighbourhoods

surpass the index threshold to be considered 'Functional'. These are solely made up of formal neighborhoods in the city's west (central) which were mostly unaffected throughout the conflict.

Transportation is the most noted "poorly-functional" service with 51 neighborhoods (out of 99 neighborhoods) reporting dissatisfaction. This is closely followed by electricity (48 out of 99) and Health (42 out of 99). (see Table 14.2 Number of neighborhoods by sector by severity of need). Issues with these services are noted in their respective sections in the profile. Water and sanitation is reported as functional in 59 neighborhoods, however four neighborhoods report severe concerns with water and sanitation.



Map 14.1: Neighborhoods Services Urban Functionality Index (UFI)

|--|

Sector	Severe	Moderate	Good
Transportation	51	20	28
Electricity	48	36	14
Health	42	31	25
Education	26	47	25
Markets	20	43	36
Solid Waste	13	33	53
WASH	4	36	59

Aleppo population index

Aleppo witnessed a significant population movement during the conflict (**see:** Section 3, Demographics and population movement). The index describes neighbourhoods throughout the city which have been severely affected by population movement. This includes neighbourhoods in the city's north (Ayn At-Tal and Ba'aiedin), center (Al-Madina Old Souq, Altunbogha, Ad-Dallain, Al-A'arqoub), east (Jibreen Industrial Area), west (University of Aleppo) and south (Tal Az-Zarazir, Ar-Ramouseh Industrial District). However, most displacement during the fighting occurred from east of the city to the west, rural surroundings, other parts of Syria, and internationallyThree neighborhoods with an "affected population"³⁴⁴ of over 10,000 people are all located in western areas of the city. The Ashrafiyeh neighbourhood, in particular, has been reported to host over 29,000 IDP's. In eastern Aleppo, both the Al Nayrab area (Palestinian camp) and Hanano neighborhood contain over 9,000 IDP's and/or returnees.



Map 14.2: Population index

Aleppo response continuum

Four eastern neighborhoods, namely Ayn At-Tal, Ba'aiedin, Al-A'arqoub, Altunbogha, Tal Az-Zarazir, are to be prioritized for relief, early recovery and recovery oriented response (see figure 14.3 UFI Response Continuum). Each require immediate, short, medium and longer term interventions. These neighborhoods have been severely affected by damage, service disruption as

Good

well as severe demographic change. Whereas the Al-Madina Old Souq and the Jibreen Industrial Area have been completely depopulated.

Inhabitants of the three neighborhoods report challenging access, unreliable and poor quality essential services.

Map 14.3: Response Continuum

Response

continuum



Severe

No data

Relief - oriented

Early Recovery - oriented

Recovery - oriented

Neighborhood boundaries

Table 14.3: Neighborhood prioritization along the response continuum

Moderate

Relief - oriented	Early - recovery	Recovery - oriented
#3. Ad-Dallain	#4. Ad-Dudu	#4. Ad-Dudu
#4. Ad-Dudu	#7. Al-A'arqoub	#24. Al-Madina Old Souq
#7. Al-A'arqoub	#24. Al-Madina Old Souq	#39. Ayn At-Tal
#24. Al-Madina Old Souq	#32. Ar-Ramouseh Indusrtial District	#42. Ba'aiedin
#29. Altunbogha	#39. Ayn At-Tal	#52. Fardos
#32. Ar-Ramouseh Indusrtial District	#42. Ba'aiedin	#59. Industrial Area in Jibreen
#39. Ayn At-Tal	#59. Industrial Area in Jibreen	#66. Karm Ad-Da'da'a
#42. Ba'aiedin	#96. Sheikh Fares	#68. Karm Al-Jazmati
#44. Bab Qinnesrine	#102. Tal Az-Zarazir	#69. Karm Al-Qaterji
#59. Industrial Area in Jibreen	#107. University of Aleppo	#73. Ma'asaraniyeh Youth Housing
#102. Tal Az-Zarazir		#92. Salheen
#107. University of Aleppo		#96. Sheikh Fares
		#97. Sheikh Kheder
		#98. Sheikh Said
		#102. Tal Az-Zarazir
		#106. Trab Al-Hellok

Relief oriented response: 12 neighborhoods have been identified as 'severe' and continue to require a relief-oriented response. In these, the focus should be on the population's immediate basic needs such as food, water, shelter and medicines. Neighborhoods of Al-Madina Old Souq (index score 0.14), Industrial Area in Jibreen (index score 0.16), Ar-Ramouseh Industrial District (index score 0.19), and the University of Aleppo (index score 0.22) top the list of areas with severe relief-oriented needs. Other immediate needs include public services, HLP dispute resolution mechanisms, and livelihood opportunities.

Early-recovery oriented response: According to the index 10 neighborhoods in highest severity requiring an 'early-recovery oriented response". All 10 of these neighbourhoods overlap with those in the severe category for relief response, with the addition of the Sheikh Fares neighborhood (index score 0.66).

An early-recovery response begins to address challenges associated with IDPs and other displacement dynamics. It will raise issues about HLP as well as infrastructure and services functionality. According to practitioners, "early recovery can last any number of weeks or months—even years. Those affected may not have yet recovered fully, but they have begun to adapt to a "new normal.""³⁴⁵ **Recovery oriented response:** With the exception of the western neighborhood of Rasafeh, highest levels of damage occurred throughout eastern Aleppo. Almost all eastern neighborhoods were severely affected by government bombing campaigns (see: profile section 6, Housing). 16 eastern neighborhoods are identified by the index with the most severely affected damage to essential services. Transportation, electricity, and health were noted as the most problematic. (see table 14.2: Number of neighborhoods by sector by severity of need)

Medium to long-term recovery includes the construction / re-construction of permanent residential structures, locating public services, and rebuilding the city's necessary infrastructure. As permanent housing is restored and schools begin to reopen, as livelihoods are restored with economic opportunity, the social fabric of Aleppo's neighborhoods will begin to strengthen.

³⁴⁴ Includes Internally Displaced Peoples (IDPs) and Returnees

^{345 &}quot;Early Recovery: Global Cluster for Early Recovery," UN-OCHA, https://www.humanitarianresponse.info/en/clusters/early-recovery.

15. 4W Analysis

Who's doing what, where and when

There are multiple agencies and INGOs working in the city. On the sub-district level in Aleppo, there are 8 UN agencies, as well as a handful of INGOs, NNGOs, the GoS, the Syrian Arab Red Crescent, as well as the Palestinian Red Crescent Society. The majority of the work is undertaken by international or nation-wide Syrian NGOs, like SARC and Syria Trust, with very few local NGOs having the opportunity to contribute. Local capacity was decimated when NGOs and aid workers operating in eastern Aleppo were forced to evacuate or cease operations once the government of Syria took back control of the city.

Despite a reasonably large number of organizations operating in the city, the number of people reached by the UN in Aleppo dropped from an average of 500,0000 for the first six months of 2018, to under 7,000 for the second half of that year (**see:** Figure 15.1 – UN-OCHA number of people reached).

Several potential reasons for this drop in the reported number of beneficiaries have been offered, including the end of the surge in resource and programming delivered through the multi-sectoral 'micro-planning' process enacted in each area of the country after the area is wrested back to government control following a military campaign, siege, and reconciliation process. Another potential reason is the change in oversight of programme and project sign off and delivery introduced by the government of Syria in mid-2018. Alternatively, there may have been a change in the reporting methodology. However, it was not possible to confirm which of these factors, or even a combination of all of them, led to the abrupt change in reported beneficiaries in Aleppo. Paradoxically, the humanitarian response in Aleppo is crowded, but has a small footprint in numbers of people reached. Due to the complications involved in requesting access from the government of Syria and of working in line with ministries and governorate plans, the response is limited in the amount of activity they can undertake across the city. Actors are not free to undertake programming in all neighbourhoods, with some of the areas of Eastern Aleppo least able to be accessed. This means the east is underserved and returns are discouraged as a result. Shelter assistance in the form of rehabilitation kits requires proof of ownership from inhabitants who may not have documentation available in informal areas. In this way, there is a concern that the response may inadvertently consolidate HLP concerns and exacerbate destabilizing issues.

Figure 15.1: UN-OCHA number of people reached. 2018



The response has made some positive impact in Aleppo. There are reportedly 130 functional schools in the city in 18 neighbourhoods, which have been rehabilitated by UNHCR, UNDP, UNICEF, and UNESCO. Another 120 public schools remain damaged. Between 2016 and 2018, UNRWA also ran schools rehabilitation and support projects in the city.

Many major hospitals were heavily damaged during the conflict, most notably the Quds Hospital and Zarzour Hospitals, and the remaining hospitals cannot meet all the inhabitants' needs. Most of the medical infrastructure in the eastern neighbourhoods is reportedly either non-functional or partially functional, which increases the burden on the medical facilities in the western parts of the city. Additionally, the area had fewer facilities to begin with. Internally, the city's road rehabilitation has as of yet focused on particular neighbourhoods within the city, rather than major road networks themselves. There remains numerous areas of the city where roads are effectively non functional.

Debris management has also posed an obstacle to transportation. Several projects, supported by UNHABITAT and UNDP, were implemented in 2017 to remove debris from main streets in less damaged neighbourhoods. Solid waste management supported by UNDP, UN-Habitat, UNICEF and UNHCR has continued through until at least February 2019.

Economic development work has been limited and access to markets is limited in the east.

Due to access restrictions imposed by the government of Syria during the initial plans for response in the city, areas of operation have been prioritized in line with the Government of Syria's plans. As a result, the programmes play into the HLP concerns that are present in the city. Services are lacking in the eastern part of the city. As NGO's are still not present in the area, agencies are currently only providing smaller scale projects such as waste collection and a small number of school and clinic rehabilitations. At this point, shelter interventions are focused exclusively on the west of the city and in neighbourhoods that the Government of Syria has prioritized.

Future programming

The response needs to be expanded in a number of ways. Primarily, response actors must ensure conflict context is taken into account and programming does not continue to consolidate HLP concerns. In addition, it will be critical to find mechanisms by which to reach larger numbers of people in a wider variety of neighbourhoods in the city.

Figure 15.2: 4W's matrix programming in the city

	Interventions						Organizations											
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Al-Ansari Mashbad																	2	W
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al-Fiza'ah										1							1	
Al-Farafra										2							2	Е
Aleppo Citadel										2							2	Е
Al-Mohafaza										1							1	W
Al-Sakhour										1							1	Е
Altunbogha										2							1	Е
Ashrafiyeh					•					3				•			1	W
Ash-Sheikh Maqsoud	•		•							2							1	W
As-Sabil			•						•	2	•	•					2	W
As-Sukkari										1							1	vv
Ash-shani Yousei Cemetry										1							1	E
Beit Meheh / Idevdeh										1							1	F
Bureii\Bureii al-Rih										2							1	-
Bostan Bash										3							1	w
Bustan Al-Qaser										2						•	2	W
Bustan Az-Zahra										2				•			1	W
Dahert Awwad										3				•			3	Е
Hamadaniyeh										1							1	W
Hanano										4				•			3	Е
Haydariyeh	•									1							1	Е
Handarat			•							1		•					1	_
Jabriyeh		•								1					•		1	E
Kallasen	•									2							1	VV
Karm Al-Dadaa										1							1	
Karm Al-Oaterii										4							4	F
Karm Homed										1							1	F
Karm Myassar			•							2							2	E
Karazadeh Cemetry										1							1	
Khaldiyeh										1							1	W
Maysaloon Cemetry	•									2							1	
Mahatet Baghdad										1							1	
Masharqa			•							1		•					1	W
Midan								•		1				•			1	E
Muhamad Bek	•						•			2		•				•	2	E
New Aleppo south										1						•	1	-
Ogniu Bek Oastal Mosht										4							1	E
Saiilikhan										1							1	F
Salah Ad-Deen										2							2	w
Sayf Ad-Dauleh										3							3	W
Suleimaniyeh			•							1							1	W
Sulieman Al-Halbi										1		•					1	Е
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16. Risks, return and response considerations

The city's recovery is predicated on a coordinated response from local government, civil society, the private sector, as well as national and international NGOs together with their partners. It is imperative that initiatives developed for recovery response are holistic, inclusive, practical, and embrace an intersectoral approach. The following considerations have been developed based on research, analysis, and interviews with stakeholders and key informants during profile development. Considerations are meant to inform local organizations and the international community in their policy and programme development.

1. Risks and safeguards for programming

Map 16.1: Risks impeding recovery



- It would be premature to assert that the city is 1.1 stable under its present control. Although the government's capture of the city ushered a period of State control, this is becoming increasingly guestioned. State control has been undermined by several factors. This includes armed groups such as Hay'at Tahrir al-Sham staging attacks on western Aleppo. Opposition groups continue to control Aleppo's access of supplies from Turkey, making the city economically reliant on the North and susceptible to regional dynamics. Security incidents are regularly reported, demonstrating that the Government's ability to maintain security and control is guestionable. Reported clashes between militias allied with Iran and Russia underpin growing tensions around the city's future. Local security is unruly. Where law enforcement is inadequate, local policing has been taken on by militias.
- 1.2 The war economy in Aleppo is increasingly streamlined and normalized through contracts, access of goods and supplies through smuggling routes, and deals made for fuel and energy. It is challenging for humanitarian actors to disentangle themselves from these cycles. Detailed duediligence is necessary prior to programming. This includes a thorough awareness of the context assessment, capacity assessments of local partners, and needs identification. Any sizable capital investment should be made a part of inclusive urban planning process and achievement of durable solutions.
- 1.3 Risk of assuming Aleppo's homogeneity. Indeed, the lack of connectivity isolates the city from its surroundings. The three enclaves in the city are very distinct in terms of population density, capacity of services and levels of damage. They also reflect distinct governance modalities: 1.) Kurdish zone where SDF established a mono SDF style of governance for largely Kurdish constituency and IDPs from Afrin; 2.) A heavily populated area hosting IDPs from the entire region, with a GoS municipal governance structure presided by the Governor and Mayor; 3.) The eastern Aleppo zone of chaos, outlaws, and competing militias. (see map 16.1)

Master Plan

1.4 Poor resource mobilization ability has weakened the GoS's reestablishment of city institutions. This has prompted the Government to lead with a two-pronged strategy: 1.) Identify immediate priorities in collaboration with the UN, and; 2.) Review and update the city's Master Plan.

- 1.5 The Master Plan aims to be an infrastructureoriented type of assessment. However, devoid of socio-demographic sensitivity, the Plan risks further alienating the community from decisionmaking processes. Master planning efforts are seeking permanent solutions for informal areas. It also intends to remedy Damascus' security concerns following the conflict. In order to implement the Plan, efforts are also underway to secure lucrative real estate development opportunities involving the private sector and business elite.
- 1.6 The planning process presents the risk of jeopardizing the rights of property owners through expropriative measures, as well as a risk that inadequate solutions are developed to revitalize the local economy. The UN and other humanitarian actors have been invited to implement initiatives in limited areas of the city considered as "safe" for recover by the GoS. However, these initiatives are disconnected from the GoS's central planning process, which is occurring independantly.

HLP

- 1.7 HLP violations are widespread. The collapse of occupied buildings in informal areas, numerous fraud and transactions, sale under duress, ban of return to several neighbourhoods, looting and systematic dismantling of old city/ cultural heritage, and intermediaries of warlords who are consolidating property shares by vulnerable owners, are all affecting individual properties.
- 1.8 Programming is at risk of consolidating or perpetuating development plans and land expropriation actions which would generate further displacements and/or exacerbate HLP concerns in the city. Particular consideration should be given to preserving the HLP rights of those that are currently displaced. Programming must be mindful of the critical destabilizing nature of HLP risks in Aleppo.

Governance

1.9 Institutional capacity of local departments and municipal services has been weakened due to brain drain, lack of financial resources, slashed public salaries, and degradation of authority. This leaves more space for war actors and alternative service providers to increasingly find a role in service provision, for multiple folds the costs. Therefore, for an average business to survive, it will face a high cost for basic services and extortive fees by militias in an uncertain investment environment.

2. Return conditions and limitations

Map 16.2: Return conditions and limitations



Divided city

- 2.1 Aleppo is still severely divided. Even though it is a primarily Sunni population, there is a growing separation between vulnerable IDPs and remnants of the middle-class population in the western hosting area. The division between east and west continues, while the Kurdish zone in the city functions as a separate entity. The remaining business class is divided which is increasingly making it challenging for relocated industries to return. The government is currently unable to meet the divides, overcasting the city with instability. (see map 16.1)
- 2.2 Aleppo cannot be reconfigured around preconflict socio-economic contours. Indeed, the city's communal diversity has been affected, the middle-class has fled, and the professional and skilled labour has disappeared. To help rebuild social and economic systems, programmes should be designed to encourage opportunities for returns which include a cross-section of the city's socioeconomic population, ensuring a more sustainable population growth.

Demographic movement

- 2.3 There has been a massive demographic transformation in Aleppo. Prior to the conflict, the city contained up to three million inhabitants. Up to two million fled during the conflict, and half a million were received. One out of three is therefore an IDP.
- 2.4 Returns have been meagre following the 2018 spike after the transition of control. The main reasons for the low level of returns are the poor economic performance, the disconnect from the rural countryside, the internal/external security hazards, as well as the slow recovery of services and infrastructure. The brain-drain and skilled labour exodus continue to date.
- 2.5 Several neighbourhoods are still completely vacant, thus being a security liability. While population has sharply increased in certain neighbourhoods, an amalgamation of issues such as security barriers, bans related to planning, or the immense level of destruction has left some abandoned and prone to crime and looting.

2.6 Maintain the rights of Aleppo's displaced to lawfully return to their properties and area of origin. Given the intrinsic link between population return, HLP risks and security concerns in eastern Aleppo, implementers should consider the impact projects may have on the legal rights of the population not currently in situ. By ascertaining a thorough understanding of context analysis, implementers may avoid projects with potential to undermine these rights. (see map 16.1)

Damage and functionality

- 2.7 There is no direct correlation between functionality and destruction which underlines an intention to restore population in neighbourhoods irrespective of damage and a broader government agenda visa-vis return and restoration of neighbourhoods.
- 2.8 Aleppo is currently viewed as a major populated place but less as a functional and planned urban space. Its markets are designed around consumption instead of a nexus of production and industry skilled crafts. The city is currently unable to deal with shocks related to the fuel crisis, the decline of agricultural productivity, electricity shortages, or interruption of the food supply. There is a dependency on the smuggling of Turkish goods, which indicates a transition to idle consumption instead of acting as a production centre.
- 2.9 The Palestinian presence in the city has been severely affected. The city's official camp, Handarat, has been decimated. Informal gatherings have been secured and are connected to the war economy of the city.

3. Guidelines for short and medium-term response

Map 16.3: Guidelines for short and medium-term recovery



Short-term

- 3.1 Focus humanitarian needs-based programming on the population currently in situ. Significant population change in Aleppo is unlikely in the near term. Structural policies and conditions are currently in place impeding return of around half of the pre-war population. Therefore, focus should be on those currently residing in the city.
- 3.2 Focus programming around services and recovery in heavily damaged eastern neighbourhoods. The severity of damage and lack of services in eastern neighbourhoods will continue to affect the ability for return. Residents who have fled to western neighbourhoods, the countryside, other cities or other abroad will be unable to return to the homes and communities until services are restored. (see map 16.3)
- 3.3 Ensure that humanitarian programming in eastern Aleppo includes thorough due diligence around the legal framework of property rights. This should be a focus of the international actors' work supporting displaced residents and their ability protect property rights.
- **3.4 Increase engagement with GoS**, through the Office of the Special Envoy, the UNRC/HC and other relevant UN partners and platforms, to raise the profile on 1.) violations currently being permitted in the Old City, 2.) Overall HLP risks in Aleppo.
- **3.5 Ensure a government interface for every initiative** to increase confidence in institutions.

- 3.6 Support government capacity to restore records, with conditions related to safeguards, adequate appeal periods, and claims to review new cadastral system.
- 3.7 Ensure social cohesion is an integral part of every programmatic response. School programmes, cultural events, as well as activities targeting youths and women should all be prioritized to improve social cohesion and interaction between population.
- 3.8 Explore independent monitoring and community engagement alternatives to support programming and mitigate risks of unrepresentative local structures. Focus resilience programming on eastern Aleppo, while humanitarian programming should continue to focus on vulnerable population in western Aleppo.
- 3.9 Structural integrity assessments must be performed of buildings throughout the city. As damaged buildings has not been properly or systematically assessed, residents or returning population cannot be assured whether buildings are sound. Focus on presently occupied buildings instead of entire neighbourhoods.
- 3.10 Take active measures to discourage looting. The impact of looting to businesses and industries is debilitating to the prospect of business recovery. Businesses report that stocks and equipment left in premises within industrial areas overnight is at risk of vanishing overnight. A return to law and order will help address many fears and concerns. It can also provide a basis for economic recovery by inviting a wider cross section of return migration, including business owners and other economic interests.
- 3.11 Focus joint programming on smaller scale projects relying on local providers as much as possible. Ensure an accountable vetting process for contractors to safeguard the community dividend and mitigate risks of fuelling the war economy. Shorter implementation periods highly advised to all sectors.

Medium-term

- **3.12** Factor in adequate capacity development local in all programming to ensure the durability of the impact and push-back against warlords.
- 3.13 Boost dialogue between business groups and IDPs/refugees. This should include refugees in Europe and neighbouring countries to support the identification of risks in the present planning process, the future of the city, and preconditions for socio-economic recovery.
- Facilitate internal connectivity through a street 3.14 arterial/corridor approach. Given the scale of damage, needs and increasingly inaccessible central points within neighbourhoods, investment priorities should focus on recovery of major access routes, markets, and areas of cultural, economic, and social significance. In order to encourage a diverse range of accessible retail, office and service use, investments are needed in public transportation, rubble removal along major routes, and road rehabilitation. This will help begin to erase the divide between east, west and north. It will increase the availability of public services (especially for lower-income residents), help mitigate HLP risks, build social cohesion, and incentivize further community-led development along these arteries. Ring roads should be prioritized, in addition to axial roads (**see** map 16.3)
- 3.15 Ensure services are accessible to all residents across the city, including in informal neighbourhoods in the east, thereby increasing population footprint in abandoned neighbourhood(s), as per the Leave No Neighbourhood Behind Policy.
- **3.16** Support rehabilitation of electricity networks at the neighbourhood level to begin local economic recovery and community stability. This will also undermine war economy factors.
- 3.17 Steer clear of tabula rasa planning paradigms through obliteration records and history of the area. Informal areas, specifically abandoned ones, should be the primary areas of international support.

- **3.18** Support an enabling environment focused on area-based approaches, instead of individual based resilience projects.
- 3.19 Leverage international funding to encourage 'rights-based' decision making in project development and services programming. The current funding for recovery and service provision by international actors, including the United Nations, outweighs the resources of local city authorities. This suggests that international funding can be conditioned to ensure inclusive participation from affected community members. It can also encourage transparency and accountability by local leadership and aid recipients.
- **3.20** Focus joint programming initiatives in Handarat camp when security conditions allow.
- 3.21 Prioritize protection of historical, cultural and archaeological significant sites. The Old City and areas have been susceptible to looting due to the relative lack of population in these areas. This includes architectural monuments showing pre and post-colonial periods such as those in al-Azīzyyeh quarter. Recovery of these places are critical to restoration of community identity, sense of history, attraction, tourism, and quality of life. Renovations of cultural heritage locations will also lead to an increase in skilled work in the city. (see map 16.3)
- 3.22 Focus on joint support to light industrial capacity of the city to support its economic potential, where jobs can be created and major HLP risks could be averted. Future restoration of infrastructure supporting Aleppo's industrial areas (Sheikh Najjar, Al Shokaief, Ar-Ramouseh, Jibreen). Industrial areas were decimated during the fighting and subsequent control by armed groups. As the core of Aleppo's economy, the health of the region's industries are an indicator of its overall economic position. (see map 16.3)



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