



Ar-Raqqa Governorate Panoramic Report

- Tribes of Ar-Raqqa Governorate
- Agriculture and Irrigation Systems in Ar-Raqqa Governorate
- Ar-Raqqa City
- Ath-Thawrah City (Tabaqa)
- Tell Abiad City
- Ein Issa City
- Suluk City

Assistance Coordination Unit

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Ar-Raqqa Governorate

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December 2019

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LIST of FIGURES

FIGURE 1 THE LAND AREA OF AR-RAQQA GOVERNORATE BY SUITABILITY FOR CULTIVATION	21
FIGURE 2 CULTIVATED LANDS IN AR-RAQQA GOVERNORATE BY IRRIGATION MECHANISMS	22
FIGURE 3 KEY IRRIGATION PROJECTS AND TOTAL AREAS TO BE IRRIGATED IN AR-RAQQA GOVERNORATE	23
FIGURE 4 THE POPULATION CENSUS BY GENDER AND AGE GROUPS IN AR-RAQQA CITY	35
FIGURE 5 IDPS AND THEIR DISTRIBUTION PLACES IN AR-RAQQA CITY	36
FIGURE 6 NUMBERS OF HOSPITALS AND DISPENSARIES IN AR-RAQQA CITY	37
FIGURE 7 NUMBER OF BAKERIES AND PRICE OF BREAD IN AR-RAQQA CITY	43
FIGURE 8 NUMBERS OF SCHOOLS IN AR-RAQQA CITY AND CAUSES OF THEIR NON-FUNCTIONALITY	48
FIGURE 9 TECHNICAL STATUS OF CLASSROOMS AND TOILETS IN AR-RAQQA CITY	53
FIGURE 10 NUMBER/PERCENTAGE OF TEACHERS BY GENDER IN AR-RAQQA CITY	55
FIGURE 11 NUMBERS OF STUDENTS BY GENDER IN AR-RAQQA CITY	57
FIGURE 12 THE TECHNICAL STATUS OF THE WATER NETWORK IN AR-RAQQA CITY AT THE NEIGHBORHOOD LEVEL	60
FIGURE 13 MECHANISMS OF WASTEWATER DISPOSAL IN AR-RAQQA CITY	62
FIGURE 14 THE TECHNICAL STATUS OF THE SEWAGE SYSTEM IN AR-RAQQA CITY AT THE NEIGHBORHOOD LEVEL	63
FIGURE 15 THE TECHNICAL STATUS OF THE ELECTRICITY GRID IN AR-RAQQA CITY AT THE NEIGHBORHOOD LEVEL	65
FIGURE 16 THE TECHNICAL STATUS OF THE ROADS NETWORK IN AR-RAQQA CITY AT THE NEIGHBORHOOD LEVEL	70
FIGURE 17 THE POPULATION CENSUS BY GENDER AND AGE GROUPS IN ATH-THAWRAH CITY	77
FIGURE 18 IDPS AND THEIR DISTRIBUTION PLACES IN ATH-THAWRAH CITY	78
FIGURE 19 NUMBERS OF HOSPITALS AND DISPENSARIES IN ATH-THAWRAH CITY	79
FIGURE 20 NUMBER OF BAKERIES AND PRICE OF BREAD IN ATH-THAWRAH CITY	83
FIGURE 21 NUMBERS OF SCHOOLS IN ATH-THAWRAH CITY AND GENDER SEGREGATION	87
FIGURE 22 TECHNICAL STATUS OF CLASSROOMS AND TOILETS IN ATH-THAWRAH CITY	91
FIGURE 23 NUMBER/PERCENTAGE OF TEACHERS BY GENDER IN ATH-THAWRAH CITY	92
FIGURE 24 NUMBERS OF STUDENTS BY GENDER IN ATH-THAWRAH CITY	94
FIGURE 25 THE TECHNICAL STATUS OF THE WATER NETWORK IN ATH-THAWRAH CITY AT THE NEIGHBORHOOD LEVEL	96
FIGURE 26 MECHANISMS OF WASTEWATER DISPOSAL IN ATH-THAWRAH CITY	98
FIGURE 27 THE TECHNICAL STATUS OF THE SEWAGE SYSTEM IN ATH-THAWRAH CITY AT THE NEIGHBORHOOD LEVEL	99
FIGURE 28 THE TECHNICAL STATUS OF THE ELECTRICITY GRID IN ATH-THAWRAH CITY AT THE NEIGHBORHOOD LEVEL	101
FIGURE 29 THE TECHNICAL STATUS OF THE ROADS NETWORK IN ATH-THAWRAH CITY AT THE NEIGHBORHOOD LEVEL	104
FIGURE 30 THE POPULATION CENSUS BY GENDER AND AGE GROUPS IN TELL ABIAD CITY	109
FIGURE 31 IDPS AND THEIR DISTRIBUTION PLACES IN TELL ABIAD CITY	110
FIGURE 32 NUMBERS OF HOSPITALS AND DISPENSARIES IN TELL ABIAD CITY	111
FIGURE 33 NUMBER OF BAKERIES AND PRICE OF BREAD IN TELL ABIAD CITY	115
FIGURE 34 NUMBERS OF SCHOOLS IN TELL ABIAD CITY AND CAUSES OF THEIR NON-FUNCTIONALITY	118
FIGURE 35 TECHNICAL STATUS OF CLASSROOMS AND TOILETS IN TELL ABIAD CITY	121
FIGURE 36 NUMBER/PERCENTAGE OF TEACHERS BY GENDER IN TELL ABIAD CITY	123
FIGURE 37 NUMBERS OF STUDENTS BY GENDER IN TELL ABIAD CITY	124
FIGURE 38 THE TECHNICAL STATUS OF THE WATER NETWORK IN TELL ABIAD CITY AT THE NEIGHBORHOOD LEVEL	127
FIGURE 39 MECHANISMS OF WASTEWATER DISPOSAL IN TELL ABIAD CITY	129
FIGURE 40 THE TECHNICAL STATUS OF THE SEWAGE SYSTEM IN TELL ABIAD CITY AT THE NEIGHBORHOOD LEVEL	129

FIGURE 41 THE TECHNICAL STATUS OF THE ELECTRICITY GRID IN TELL ABIAD CITY AT THE NEIGHBORHOOD LEVEL	131
FIGURE 42 THE TECHNICAL STATUS OF THE ROADS NETWORK IN TELL ABIAD CITY AT THE NEIGHBORHOOD LEVEL	135
FIGURE 43 THE POPULATION CENSUS BY GENDER AND AGE GROUPS IN EIN ISSA CITY	140
FIGURE 44 IDPS AND THEIR DISTRIBUTION PLACES IN EIN ISSA CITY	141
FIGURE 45 NUMBER OF BAKERIES AND PRICE OF BREAD IN EIN ISSA CITY	145
FIGURE 46 NUMBER/PERCENTAGE OF TEACHERS BY GENDER IN EIN ISSA CITY	151
FIGURE 47 NUMBERS OF STUDENTS BY GENDER IN EIN ISSA CITY	152
FIGURE 48 MECHANISMS OF WASTEWATER DISPOSAL IN EIN ISSA CITY	154
FIGURE 49 THE TECHNICAL STATUS OF THE SEWAGE SYSTEM IN EIN ISSA CITY AT THE NEIGHBORHOOD LEVEL	155
FIGURE 50 THE TECHNICAL STATUS OF THE ROADS NETWORK IN EIN ISSA CITY AT THE NEIGHBORHOOD LEVEL	157
FIGURE 51 THE POPULATION CENSUS BY GENDER AND AGE GROUPS IN SULUK CITY	162
FIGURE 52 IDPS AND THEIR DISTRIBUTION PLACES IN SULUK CITY	163
FIGURE 53 NUMBER OF BAKERIES AND PRICE OF BREAD IN SULUK CITY	166
FIGURE 54 NUMBER/PERCENTAGE OF TEACHERS BY GENDER IN SULUK CITY	172
FIGURE 55 NUMBERS OF STUDENTS BY GENDER IN SULUK CITY	173
FIGURE 56 THE TECHNICAL STATUS OF THE WATER NETWORK IN SULUK CITY AT THE NEIGHBORHOOD LEVEL	176
FIGURE 57 MECHANISMS OF WASTEWATER DISPOSAL IN SULUK CITY	178
FIGURE 58 THE TECHNICAL STATUS OF THE SEWAGE SYSTEM IN SULUK CITY AT THE NEIGHBORHOOD LEVEL	179
FIGURE 59 THE TECHNICAL STATUS OF THE ELECTRICITY GRID IN SULUK CITY AT THE NEIGHBORHOOD LEVEL	181
FIGURE 60 THE TECHNICAL STATUS OF THE ROADS NETWORK IN SULUK CITY AT THE NEIGHBORHOOD LEVEL	184

LIST OF MAPS

MAP 1 ASSESSED COMMUNITIES IN AR-RAQQA GOVERNORATE	17
MAP 2 IRRIGATION SYSTEMS IN AR-RAQQA GOVERNORATE	30
MAP 3 THE NEIGHBORHOODS OF AR-RAQQA CITY	34
MAP 4 NUMBER OF FUNCTIONAL BAKERIES IN AR-RAQQA CITY BY NEIGHBORHOODS	45
MAP 5 NUMBERS OF FUNCTIONAL AND NON-FUNCTIONAL SCHOOLS IN AR-RAQQA CITY BY NEIGHBORHOODS	52
MAP 6 DESTRUCTION IN THE WATER NETWORK IN AR-RAQQA CITY BY NEIGHBORHOODS	61
MAP 7 THE TECHNICAL STATUS OF THE SEWAGE SYSTEM IN AR-RAQQA CITY AT THE NEIGHBORHOOD LEVEL	64
MAP 8 DESTRUCTION IN THE ELECTRICITY GRID IN AR-RAQQA CITY AT THE NEIGHBORHOOD LEVEL	66
MAP 9 PUBLIC ELECTRICITY GENERATORS IN AR-RAQQA CITY	69
MAP 10 DESTRUCTION IN THE ROADS NETWORK IN AR-RAQQA CITY AT THE NEIGHBORHOOD LEVEL	71
MAP 11 THE NEIGHBORHOODS OF ATH-THAWRAH CITY	76
MAP 12 NUMBER OF FUNCTIONAL BAKERIES IN ATH-THAWRAH CITY BY NEIGHBORHOODS	85
MAP 13 NUMBERS OF FUNCTIONAL AND NON-FUNCTIONAL SCHOOLS IN ATH-THAWRAH CITY BY NEIGHBORHOODS	90
MAP 14 DESTRUCTION IN THE WATER NETWORK IN ATH-THAWRAH CITY BY NEIGHBORHOODS	97
MAP 15 DESTRUCTION IN THE SEWAGE SYSTEM IN ATH-THAWRAH CITY AT THE NEIGHBORHOOD LEVEL	100
MAP 16 DESTRUCTION IN THE ELECTRICITY GRID IN ATH-THAWRAH CITY AT THE NEIGHBORHOOD LEVEL	102
MAP 17 DESTRUCTION IN THE ROADS NETWORK IN ATH-THAWRAH CITY AT THE NEIGHBORHOOD LEVEL	105
MAP 18 THE NEIGHBORHOODS OF TELL ABIAD CITY	108
MAP 19 NUMBER OF FUNCTIONAL BAKERIES IN TELL ABIAD CITY BY NEIGHBORHOODS	116
MAP 20 NUMBERS OF FUNCTIONAL AND NON-FUNCTIONAL SCHOOLS IN TELL ABIAD CITY BY NEIGHBORHOODS	120
MAP 21 NUMBER OF ARTESIAN WELLS IN TELL ABIAD CITY BY NEIGHBORHOODS	126
MAP 22 DESTRUCTION IN THE WATER NETWORK IN TELL ABIAD CITY BY NEIGHBORHOODS	128
MAP 23 THE TECHNICAL STATUS OF THE SEWAGE SYSTEM IN TELL ABIAD CITY AT THE NEIGHBORHOOD LEVEL	130
MAP 24 DESTRUCTION IN THE ELECTRICITY GRID IN TELL ABIAD CITY AT THE NEIGHBORHOOD LEVEL	133
MAP 25 DESTRUCTION IN THE ROADS NETWORK IN TELL ABIAD CITY AT THE NEIGHBORHOOD LEVEL	136
MAP 26 THE NEIGHBORHOODS OF EIN ISSA CITY	139
MAP 27 NUMBER OF FUNCTIONAL BAKERIES IN EIN ISSA CITY BY NEIGHBORHOODS	146
MAP 28 NUMBERS OF FUNCTIONAL AND NON-FUNCTIONAL SCHOOLS IN EIN ISSA CITY BY NEIGHBORHOODS	150
MAP 29 THE TECHNICAL STATUS OF THE SEWAGE SYSTEM IN EIN ISSA CITY AT THE NEIGHBORHOOD LEVEL	156
MAP 30 DESTRUCTION IN THE ROADS NETWORK IN EIN ISSA CITY AT THE NEIGHBORHOOD LEVEL	158
MAP 31 THE NEIGHBORHOODS OF SULUK CITY	161
MAP 32 NUMBER OF FUNCTIONAL BAKERIES IN SULUK CITY BY NEIGHBORHOODS	167
MAP 33 NUMBERS OF FUNCTIONAL AND NON-FUNCTIONAL SCHOOLS IN SULUK CITY BY NEIGHBORHOODS	171
MAP 34 NUMBER OF ARTESIAN WELLS IN SULUK CITY BY NEIGHBORHOODS	175
MAP 35 DESTRUCTION IN THE WATER NETWORK IN SULUK CITY BY NEIGHBORHOODS	177
MAP 36 THE TECHNICAL STATUS OF THE SEWAGE SYSTEM IN SULUK CITY AT THE NEIGHBORHOOD LEVEL	180

MAP 37 DESTRUCTION IN THE ELECTRICITY GRID IN SULUK CITY AT THE NEIGHBORHOOD LEVEL	182
MAP 38 DESTRUCTION IN THE ROADS NETWORK IN SULUK CITY AT THE NEIGHBORHOOD LEVEL	185

LIST OF TABLES

TABLE 1 GRAIN CENTERS IN AR-RAQQA GOVERNORATE	31
TABLE 2 INFORMATION OF MEDICAL CENTERS IN AR-RAQQA CITY	38
TABLE 3 INFORMATION OF MEDICAL CADRES IN AR-RAQQA CITY	39
TABLE 4 EQUIPMENT OF MEDICAL CENTERS IN AR-RAQQA CITY	40
TABLE 5 NUMBER OF BENEFICIARIES OF MEDICAL CENTERS IN AR-RAQQA CITY	41
TABLE 6 THE NEEDS OF THE MEDICAL CENTERS IN AR-RAQQA CITY	42
TABLE 7 BAKERIES IN AR-RAQQA CITY AND ENTITIES SUPERVISING THEM	44
TABLE 8 THE BAKERIES' PRODUCTION CAPACITY AND THE BREAD'S PRODUCTION COST IN AR-RAQQA CITY	46
TABLE 9 GENERAL INFORMATION ON SCHOOLS IN AR-RAQQA CITY	48
TABLE 10 INFORMATION ON THE TECHNICAL STATUS OF SCHOOL FACILITIES IN AR-RAQQA CITY	54
TABLE 11 TEACHING CADRES IN AR-RAQQA CITY	56
TABLE 12 INFORMATION ON STUDENTS BY GENDER IN AR-RAQQA CITY	58
TABLE 13 PUBLIC WATER STATIONS SUPPLYING AR-RAQQA CITY	59
TABLE 14 PUBLIC ELECTRICITY GENERATORS IN AR-RAQQA CITY AT THE NEIGHBORHOOD LEVEL	67
TABLE 15 INFORMATION OF MEDICAL CENTERS IN ATH-THAWRAH CITY	79
TABLE 16 INFORMATION OF MEDICAL CADRES IN ATH-THAWRAH CITY	80
TABLE 17 EQUIPMENT OF MEDICAL CENTERS IN ATH-THAWRAH CITY	81
TABLE 18 NUMBER OF BENEFICIARIES OF MEDICAL CENTERS IN ATH-THAWRAH CITY	81
TABLE 19 THE NEEDS OF THE MEDICAL CENTERS IN ATH-THAWRAH CITY	82
TABLE 20 BAKERIES IN ATH-THAWRAH CITY AND ENTITIES SUPERVISING THEM	84
TABLE 21 THE BAKERIES' PRODUCTION CAPACITY AND THE BREAD'S PRODUCTION COST IN ATH-THAWRAH CITY	86
TABLE 22 GENERAL INFORMATION ON SCHOOLS IN ATH-THAWRAH CITY	88
TABLE 23 INFORMATION ON THE TECHNICAL STATUS OF SCHOOL FACILITIES IN ATH-THAWRAH CITY	92
TABLE 24 TEACHING CADRES IN ATH-THAWRAH CITY	93
TABLE 25 INFORMATION ON STUDENTS BY GENDER IN ATH-THAWRAH CITY	94
TABLE 26 PUBLIC WATER STATIONS SUPPLYING ATH-THAWRAH CITY	95
TABLE 27 ELECTRICITY CONVERTERS IN ATH-THAWRAH CITY	103
TABLE 28 INFORMATION OF MEDICAL CENTERS IN TELL ABIAD CITY	111
TABLE 29 INFORMATION OF MEDICAL CADRES IN TELL ABIAD CITY	112
TABLE 30 EQUIPMENT OF MEDICAL CENTERS IN TELL ABIAD CITY	113
TABLE 31 NUMBER OF BENEFICIARIES OF MEDICAL CENTERS IN TELL ABIAD CITY	113
TABLE 32 THE NEEDS OF THE MEDICAL CENTERS IN TELL ABIAD CITY	114
TABLE 33 BAKERIES IN TELL ABIAD CITY AND ENTITIES SUPERVISING THEM	115
TABLE 34 THE BAKERIES' PRODUCTION CAPACITY AND THE BREAD'S PRODUCTION COST IN TELL ABIAD CITY	117
TABLE 35 GENERAL INFORMATION ON SCHOOLS IN TELL ABIAD CITY	119
TABLE 36 INFORMATION ON THE TECHNICAL STATUS OF SCHOOL FACILITIES IN TELL ABIAD CITY	122
TABLE 37 TEACHING CADRES IN TELL ABIAD CITY	123
TABLE 38 INFORMATION ON STUDENTS BY GENDER IN TELL ABIAD CITY	124
TABLE 39 PUBLIC ARTESIAN WELLS IN TELL ABIAD CITY	125
TABLE 40 ELECTRICITY CONVERTERS IN TELL ABIAD CITY	132
TABLE 41 PUBLIC ELECTRICITY GENERATORS IN TELL ABIAD CITY AT THE NEIGHBORHOOD LEVEL	134
TABLE 42 INFORMATION OF MEDICAL CENTERS IN EIN ISSA CITY	142
TABLE 43 INFORMATION OF MEDICAL CADRES IN EIN ISSA CITY	142
TABLE 44 EQUIPMENT OF MEDICAL CENTERS IN EIN ISSA CITY	143
TABLE 45 NUMBER OF BENEFICIARIES OF MEDICAL CENTERS IN EIN ISSA CITY	143
TABLE 46 THE NEEDS OF THE MEDICAL CENTERS IN EIN ISSA CITY	144
TABLE 47 BAKERIES IN EIN ISSA CITY AND ENTITIES SUPERVISING THEM	145
TABLE 48 THE BAKERIES' PRODUCTION CAPACITY AND THE BREAD'S PRODUCTION COST IN EIN ISSA CITY	147
TABLE 49 GENERAL INFORMATION ON SCHOOLS IN EIN ISSA CITY	148
TABLE 50 INFORMATION ON THE TECHNICAL STATUS OF SCHOOL FACILITIES IN EIN ISSA CITY	149
TABLE 51 TEACHING CADRES IN EIN ISSA CITY	151
TABLE 52 INFORMATION ON STUDENTS BY GENDER IN EIN ISSA CITY	152

TABLE 53 PUBLIC WATER STATIONS SUPPLYING EIN ISSA CITY	153
TABLE 54 ARTESIAN WELLS IN EIN ISSA CITY	154
TABLE 55 ELECTRICITY CONVERTERS IN EIN ISSA CITY	157
TABLE 56 INFORMATION OF MEDICAL CENTERS IN SULUK CITY	164
TABLE 57 INFORMATION OF MEDICAL CADRES IN SULUK CITY	164
TABLE 58 EQUIPMENT OF MEDICAL CENTERS IN SULUK CITY	165
TABLE 59 NUMBER OF BENEFICIARIES OF MEDICAL CENTERS IN SULUK CITY	165
TABLE 60 THE NEEDS OF THE MEDICAL CENTERS IN SULUK CITY	165
TABLE 61 BAKERIES IN SULUK CITY AND ENTITIES SUPERVISING THEM	166
TABLE 62 THE BAKERIES' PRODUCTION CAPACITY AND THE BREAD'S PRODUCTION COST IN SULUK CITY	168
TABLE 63 GENERAL INFORMATION ON SCHOOLS IN SULUK CITY	169
TABLE 64 INFORMATION ON THE TECHNICAL STATUS OF SCHOOL FACILITIES IN SULUK CITY	170
TABLE 65 TEACHING CADRES IN SULUK CITY	172
TABLE 66 INFORMATION ON STUDENTS BY GENDER IN SULUK CITY	173
TABLE 67 ARTESIAN WELLS IN SULUK CITY	174
TABLE 68 ELECTRICITY CONVERTERS IN SULUK CITY	183
TABLE 69 PUBLIC ELECTRICITY GENERATORS IN SULUK CITY AT THE NEIGHBORHOOD LEVEL	183

TABLE OF CONTENTS

SECTION I: EXECUTIVE SUMMARY	11
SECTION II: METHODOLOGY	13
Timetable.....	13
Tools and Applications Used	13
Difficulties and Challenges	14
SECTION III: INTRODUCTION	15
SECTION IV: TRIBES OF AR-RAQQA GOVERNORATE	18
SECTION V: AGRICULTURE AND IRRIGATION SYSTEMS IN AR-RAQQA GOVERNORATE	21
First: The Nature of Lands in Ar-Raqqa Governorate	21
Second: Agricultural Lands in Ar-Raqqa Governorate by Irrigation Mechanisms.....	22
Third: Irrigation Projects and Systems in Ar-Raqqa Governorate.....	23
Fourth: Grain Centers in Ar-Raqqa Governorate	31
SECTION VI: AR-RAQQA CITY	32
First: The Neighborhoods of Ar-Raqqa City.....	32
Second: The Demographic Composition of Ar-Raqqa City	35
Third: The Health Sector in Ar-Raqqa City	37
Fourth: Bakeries in Ar-Raqqa City.....	43
Fifth: Schools in Ar-Raqqa City	48
Sixth: Water in Ar-Raqqa City.....	58
Seventh: The Sewage System in Ar-Raqqa City	62
Eighth: Electricity in Ar-Raqqa City.....	65

Ninth: Public Roads in Ar-Raqqa City	70
SECTION VII: ATH-THAWRAH CITY (TABAQA)	72
First: The Neighborhoods of Ath-Thawrah City.....	72
Second: The Demographic Composition of Ath-Thawrah City	77
Third: The Health Sector in Ath-Thawrah City	79
Fourth: Bakeries in Ath-Thawrah City.....	83
Fifth: Schools in Ath-Thawrah City	87
Sixth: Water in Ath-Thawrah City.....	95
Seventh: The Sewage System in Ath-Thawrah City	98
Eighth: Electricity in Ath-Thawrah City.....	101
Ninth: Public Roads in Ath-Thawrah City	104
SECTION VIII: TELL ABIAD CITY	106
First: The Neighborhoods of Tell Abiad City.....	106
Second: The Demographic Composition of Tell Abiad City	109
Third: The Health Sector in Tell Abiad City	111
Fourth: Bakeries in Tell Abiad City.....	114
Fifth: Schools in Tell Abiad City	118
Sixth: Water in Tell Abiad City.....	125
Seventh: The Sewage System in Tell Abiad City	129
Eighth: Electricity in Tell Abiad City	131
Ninth: Public Roads in Tell Abiad City	135
SECTION IX: EIN ISSA CITY	137
First: The Neighborhoods of Ein Issa City	137
Second: The Demographic Composition of Ein Issa City.....	140
Third: The Health Sector in Ein Issa City.....	142
Fourth: Bakeries in Ein Issa City	145
Fifth: Schools in Ein Issa City	148
Sixth: Water in Ein Issa City	153
Seventh: The Sewage System in Ein Issa City.....	154
Eighth: Electricity in Ein Issa City	157
Ninth: Public Roads in Ein Issa City.....	157
SECTION X: SULUK CITY	159

First: The Neighborhoods of Suluk City	159
Second: The Demographic Composition of Suluk City.....	162
Third: The Health Sector in Suluk City.....	164
Fourth: Bakeries in Suluk City	166
Fifth: Schools in Suluk City	169
Sixth: Water in Suluk City	174
Seventh: The Sewage System in Suluk City	178
Eighth: Electricity in Suluk City.....	181
Ninth: Public Roads in Suluk City.....	184

LIST OF ACRONYMS

ACU	Assistance Coordination Unit
CHF	Cooperative Housing Foundation
ERD	Economic Recovery and Development
FGD	Focus Group Discussion
IDP	Internally Displaced Person
IMU	Information Management Unit
INGO	International Non-Governmental Organisation
IRC	International Rescue Committee
ISIL	Islamic State of Iraq and the Levant
KII	Key Informant Interview
MPI	Market Price Index
MSD	Syrian Democratic Council
NGO	Non-Governmental Organisation
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
PKK	Kurdistan Workers' Party
SES Project	Syria Essential Services
SYP	Syrian Pound
USAID	United States Agency for International Development
USD	United States Dollar
UPP	Un Ponte Per Organization

SECTION I: EXECUTIVE SUMMARY

1. **Tribes of Ar-Raqqa Governorate:** The report contains basic information on 36 tribes in Ar-Raqqa governorate. In cooperation with their tribe members, Ar-Raqqa Provincial Council collected the tribes' data.
2. **Agriculture and Irrigation Systems in Ar-Raqqa Governorate:** Arable lands formed 41% (806,155 hectares), and non-arable lands formed 59% (1,155,431 hectares) of the governorate's land area. 188,503 hectares of lands were irrigated whereas 403,303 hectares were rainfed. Further, Ar-Raqqa governorate contained 10 key irrigation projects depending on the Euphrates and the Balikh rivers and the lakes of the Euphrates and Al-Baath dams and planning to irrigate an arable area estimated at 103,659 hectares.
3. **Ar-Raqqa City:** At the time of preparation of this report, the city was divided into 23 neighborhoods with a population of 299,824 people, 30% of which were IDPs. The city included 17 basic medical points, six of which were hospitals, 25 bakeries, three of which were non-functional, and 51 schools, 27 of which were non-functional. Moreover, it contained three water stations for supplying the city with water for drinking and other uses; however, the public water network was disproportionately destroyed. A percentage of 15% of housings in Ar-Raqqa city disposed their wastewater within irregular cesspools, whereas the sewage systems suffered from significant percentages of destruction. Most of the city's neighborhoods had no public electricity grids and depended on 43 public electricity generators (amperes). The city's public road network also suffered from high percentages of damage.
4. **Ath-Thawrah City:** At the time of preparation of this report, the city was divided into 18 neighborhoods with a population of 131,500 people, 33% of which were IDPs. The city included seven basic medical points, three of which were hospitals, 10 bakeries, all of which were functional, and 29 schools, 17 of which were non-functional. Additionally, it contained two water stations for supplying the city with water for drinking and other uses; however, the public water network was disproportionately destroyed, and one neighborhood was without a water network. A percentage of 13% of housings in Ath-Thawrah city disposed their wastewater within irregular cesspools, whereas the sewage systems suffered from significant percentages of destruction, and four neighborhoods were without any sewage systems. The public electricity grid had minor malfunctions, and electricity was supplied for most of the day. The city's public road network also suffered from high percentages of damage, and some neighborhoods were without public road networks.
5. **Tell Abiad City:** At the time of preparation of this report, the city was divided into 14 neighborhoods with a population of 12,600 people, 5% of which were IDPs. The city included three basic medical points, two of which were hospitals, four bakeries, one of which was non-functional, and nine schools, three of which were non-functional. Tell Abiad had no water stations and depended on artesian wells for pumping the water directly into the public water network and supplying the city with water for drinking and other uses as all neighborhoods, except one without any, had sound public water networks. Furthermore, only 5% of housings in Tell Abiad city disposed their wastewater within irregular cesspools as the sewage systems suffered from very minor destructions, whereas one neighborhood was without any sewage system. The city's public road network and electricity grid suffered from varying proportions of malfunctions, and electricity was supplied from the public electricity grid for most of the day.

6. **Ein Issa City:** At the time of preparation of this report, the city was divided into nine neighborhoods with a population of 18,550 people, 81% of which were IDPs; 14,500 IDPs stranded in Ein Issa camp there. The city included only two basic medical points, a private hospital and a dispensary affiliated with the camp, four bakeries, one of which was non-functional, and four schools, all of which were functional but taught primary education stage only (from first to sixth grade). Furthermore, Ein Issa included a water station and two artesian wells for supplying the city with water for drinking and other uses as all neighborhoods had sound public water networks. A percentage of 15% of housings in Ein Issa city disposed their wastewater within irregular cesspools, and the sewage systems were sound in all neighborhoods but had malfunctions in two neighborhoods. The public electricity grid did not include any malfunctions and supplied electricity for most of the day, whereas the public road network included varying proportions of destruction.
7. **Suluk City:** At the time of preparation of this report, the city was divided into 18 neighborhoods with a population of 11,095 people, 32% of which were IDPs. The city included only two basic medical points, a private hospital and a dispensary, four bakeries, all of which were functional, and four schools, all of which were functional but taught primary education stage only (from first to sixth grade). Moreover, Suluk city had no water stations and depended on artesian wells for pumping the water directly into the public water network and supplying the city with water for drinking and other uses as the city's public water network was sound but had malfunctions in some parts. A percentage of 20% of the city's housings disposed their wastewater within irregular cesspools, and the sewage systems had varying malfunctions in all neighborhoods. The public electricity grid did not include any malfunctions and supplied electricity for most of the day, whereas the city's public road network suffered from significant proportions of destruction.

SECTION II: METHODOLOGY

The work on Ar-Raqqa governorate report was initiated in early April 2019, and the final report was issued by the end of October 2019.

Timetable

The questionnaires' design and revision were finalized in mid-April 2019. By the end of the month, 15 enumerators received a 7-day training via Skype for Business application on the questionnaires and the mechanism of data collection, triangulation and submission. Data collection started shortly thereafter and lasted for 25 working days. The network focal points had daily contact with the enumerators to respond to any query and provide alternative solutions in case of any barrier. The sent values were reviewed with the enumerators and daily debriefed. The paper key informant questionnaire required data loading into Excel tables. The data cleaning lasted for 7 days, and the data analysis and visualization started in early July 2019, lasted for 5 working days and was concluded by the scheduled completion date. After that, the report writing was initiated, lasted for 30 working days and was concluded in mid-August 2019, as the maps were prepared concurrently with the report. The translation process started, lasted for 20 working days and was concluded in mid-September 2019. Finally, the designer issued the final report in October 2019.

Tools and Applications Used

Three questionnaires were designed for data collection as follows:

- **Electronic Key Informants1 Questionnaire:** electronically programmed using Kobo Collect to obtain some indicators on the general condition in Ar-Raqqa governorate.
- **Paper Key Informants2 Questionnaire:** this questionnaire was collected on paper so the enumerator can add as much data as possible during the key informant interview.
- **Questionnaire of Enumerator's General Observations:** a paper questionnaire for the enumerator to add observations during the data collection period aiming to enrich the report with information and explain difficulties and obstacles faced during the data collection period and how alternative solutions were found.

The enumerators need to interview at least three key informants per sector; which means that the number of interviews exceeded 30 KIIs per city and over 150 KIIs for the entire report. In some sectors, the informants required field visits; to schools in the education sector and to wells and stations in the water sector, for instance.

The network focal points trained 15 enumerators on data collection using Skype for Business application. Paper data was loaded into Excel tables, as this application was used to visualize figures and tables. The GIS Officer used Arc GIS application to produce maps and charts, and the Designers used Adobe Photoshop after the report's translation was concluded.

Difficulties and Challenges

- **Military Situation and Constrictive Security Imposed by the Dominating Forces:** The bad security condition forced the enumerators to work in strict secrecy for their own safety. They were obliged to use their personal relations to collect data and avoid direct questions.
- **Time Constraints and Voluminous Information Required:** This questionnaire required a vast amount of information collected for the first time. Accurate details from available facilities were needed, hence the enumerators had to visit the facilities and check their situations. This difficulty was overcome by dividing the work as per the report's sectors and adopting a clear division of the cities' neighborhoods to organize work. By such division, the enumerator avoided undertaking repeated visits to the same neighborhood and thus saved time and interviewed the largest number of key informants in one day. Moreover, knowing and avoiding the weaknesses of the facility's information during data collection saved the enumerators time and efforts.
- **Difficulty in Obtaining Information on Private Facilities:** A number of service facilities were owned and supervised by private entities; such as bakeries, wells, electricity generators...etc. It was difficult to obtain information from such facilities; therefore, the enumerators used their personal relations to contact and collection data from such individuals.
- **Specialized Information:** The report contains sections that require specialists for collecting accurate information; therefore, reliance was placed on enumerators from different specializations; such as architects, doctors and agricultural, irrigation and water engineers, who were trained on data collection and used to reduce the error rate as much as possible.

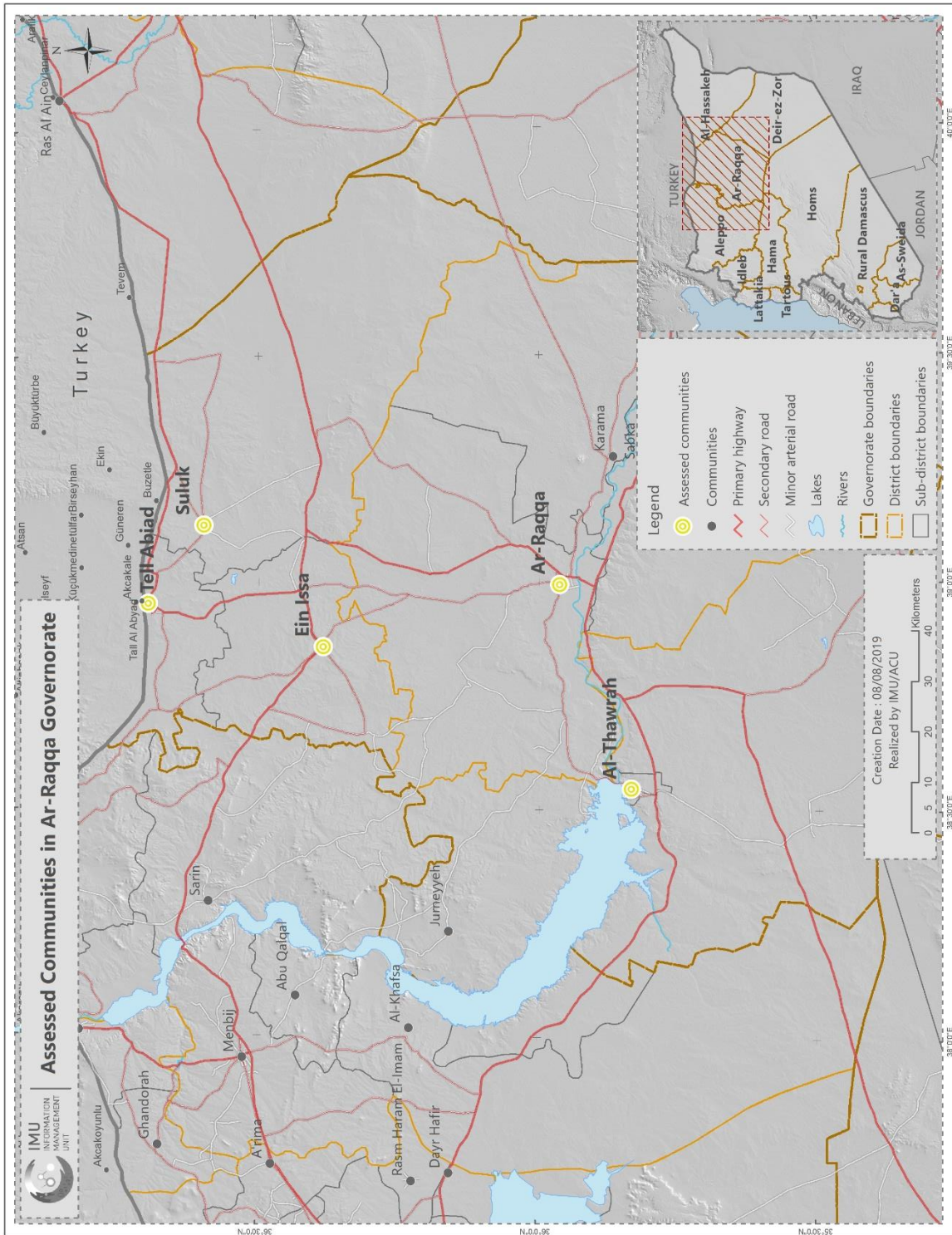
SECTION III: INTRODUCTION

Ar-Raqqa governorate is situated in north and central Syria on the Turkish-Syrian borders. Administratively, it is divided into three districts containing 10 sub-districts with 662 communities of different sizes. According to the Syrian regime 2011 statistics, its population was estimated at 833,293 people; however, the above figure does not represent the reality as Ar-Raqqa governorate used to contain a large number of inhabitants from all governorates, especially Ar-Raqqa city and Ath-Thawrah city (Tabaqa) which was established after constructing the Euphrates Dam. In its Dam's facilities, Ath-Thawrah city used to contain a large number of employees from other governorates. Those civilians lived in Ar-Raqqa governorate even though they were registered in other governorates. On 1 August 2012, the opposition forces seized Suluk sub-district, which is affiliated with Ar-Raqqa governorate, after it was controlled by the Syrian regime forces. On 19 September 2012, the opposition forces seized Tell Abiad border gate of strategic importance. On 1 November 2012, the regime forces targeted Akçakale, a Turkish city, with heavy artillery, killing a whole family, which pushed the Turkish forces to respond to the source of shelling, hence the artillery regiment to withdraw from Elali Bajliyah village to 93 Brigade in Ein Issa sub-district. On 4 March 2013, the opposition forces seized Ar-Raqqa city after it was under the regime forces' control. The first governorate center that became completely out of the regime control was Ar-Raqqa city, which drew the opposition's attention to moving all political and service bodies to Ar-Raqqa city, and dozens of the opposition political delegations visited the city after its liberation from the regime control; however, ISIL emergence there cancelled all of the opposition's plans at that time. On 15 August 2013, clashes between some of the opposition armed factions and ISIL were initiated and ended with the faction's withdrawal from the city, which led to ISIL emergence as a prominent force in the city. On 29 December 2013, ISIL attempted to control the entire city and expel all armed opposition factions there, which ended with ISIL control over the entire city within few days. When it took full control over Ar-Raqqa governorate, ISIL started a westward expansion, reaching Ain Al Arab sub-district (Kobani) in Aleppo governorate, controlling over 70% of the city, reaching Morshed Binar border gate, hence leading the International Coalition to intervene, strike ISIL and enable the PKK forces to regain control over Ain Al Arab city. The PKK's expansionist aims did not stop with retaking Ain Al Arab city, rather reached Suluk and Ein Issa sub-districts. On 10 June 2015, the PKK controlled Suluk and Ein Issa sub-districts with support from the International Coalition aircraft, which were sweeping the villages with strikes and heavy machine guns before the PKK's advance there. Under the pretext of combating terrorism, the PKK displaced around 90% of the residents in those sub-districts. After that, in October 2017, the PKK took over Ar-Raqqa city with support from the International Coalition. On the understanding that Ar-Raqqa governorate is ranked first in Syria in producing irrigated strategic crops, as it has the Euphrates basin, a huge irrigation system and the Euphrates and Balikh rivers flowing through, the present report was expanded in the agricultural sector of the governorate.

The report also contains detailed information on the service aspects and the civilian facilities within five main cities in Ar-Raqqa governorate:

- Ar-Raqqa city: it is the administrative center of Ar-Raqqa governorate with the largest community;
- Ath-Thawrah city: contains the Euphrates Dam, which is the largest in Syria and forms the Euphrates Lake, which is an essential source of electricity for the district and the irrigation systems;
- Tell Abiad city: it has a strategic importance for being adjacent to the Syrian-Turkish borders and containing Tell Abiad border gate; and
- Ein Issa and Suluk cities: of the largest communities in the northern Ar-Raqqa governorate and the centers of Suluk and Ein Issa sub-districts.

Map 1 Assessed Communities in Ar-Raqqa Governorate



SECTION IV: TRIBES OF AR-RAQQA GOVERNORATE

The Arab tribes are the essential component of Ar-Raqqa governorate's population, together with the existence of Syrian Kurds and Turkmen in several villages in the governorate.

1. **Al-'Afadleh Tribe:** it is one of the largest tribes in Ar-Raqqa governorate and descends from Hasan Ash-Sha'ban who had two sons; Thaher and Shibl. Al-'Afadleh tribe is the descendant of Thaher, who had seven sons forming the seven subfractions of Al-'Afadleh tribe (Al-Hous, Al-Brej, Al-Musa, Al-Medlej, Al-Ghanem, Al-Awwad and Al-Issa) and their chieftaincies are Al-Hweidi family. Al-'Afadleh distribute in Ar-Raqqa city and its surrounding towns and nearby countryside, such as Al-Mashlab, Raeqqet Samra, Tawi Rumman, Al-Hamrat, Al-Karama, Al-Jdeidat, Al-Hous, At-Trifawi, Moezleh, Tal Elsamen, Ba's, As-Salhabiyat, Hawi Elhawa and Al-Kasrat towns.
2. **Al-Wildeh Tribe:** they are the sons of Hazea Ibn Shaaban and considered as one of the biggest tribes in the Euphrates Valley. It is composed of several subfractions (Al-Ali, An-Nasser, Ali Al-Fares, Al-Ja'abat, Al-Ghanem, Albu Masarrah, At-Turn, Al-Hweiwat and Al-Amer). The tribe's chieftaincy in the western bank of the Euphrates River (or what is known as Ash-Shamiyeh) is concentrated in Muhammad Al-Faraj family and in the eastern bank of the Euphrates River (or what is known as Aj-Jazirah) in Albu Rasan family. The tribe is distributed in Ar-Raqqa city and the governorate's countryside. Further, they largely spread in Ath-Thawrah (Tabaqa), Mansura and Jurneyyeh cities and in Shams Eldin, Abu Jadi and Jeiber towns.
3. **Sabka Tribe:** they descend from As-Subae' Ibn Shaaban and are distributed in the southern bank of the Euphrates River (or what is known as Ash-Shamiyeh) in Kisret Mohammed Agha, Akeirshi, Rahbi, Al-Shridah, Sabka, Ghanem Ali, Little Maghalla, Big Maghalla, Jaber, Khamisiyeh, Sweida (Maadan) towns and in Tabni city which is affiliated with Deir-ez-Zor governorate. Their chieftaincy belongs to Ar-Rakan family.
4. **Al-Mashhour Tribe:** they descend from Al-Bakkarah tribe (a large tribe in Deir-ez-Zor governorate) and are distributed in Tell Abiad villages, basically in Shreaan, Hawi, Bir Mohammed Elkhader, Al-Hwijja, Al Monbateh, Katuniyeh and Badi towns. Their chieftaincy belongs to At-Tahri family.
5. **Al-Jis Tribe:** they descend from Amer Bani Sa'sa'a and are composed of Al-Jamileh, As-Sayyaleh, Ath-Th'albeh, Al-M'aljeh, Al-Bashamjeh, Al-Munif, Al-Jar'an, Albu Jaradeh, Al-'Aleimat, Al-'Abadeh and As-Saramdeh. They are distributed in Tell Abiad district and its countryside and in Ar-Raqqa city too.
6. **An-Naim Tribe:** they are distributed in Tell Abiad district.
7. **Albu Assaf Tribe:** they are distributed in Tell Abiad district and in Ar-Raqqa city. Their chieftaincy belongs to the family of Sheikh Khalaf Al-Hassan and Al-Khalaf Al-Issa and his sons. One of the tribe's subfractions is called Ash-Shaftrat and distributed in Jurneyyeh and Ein Issa sub-districts.
8. **Al-Majadmeh Tribe:** they descend from Al-Jabbour tribe (a tribe from the Arabian Peninsula) and are distributed throughout scattered villages in the northern part of Ar-Raqqa governorate, such as Khneizat, Lakta and Al-Hammoud towns. Their chieftaincy belongs to Al-Kasha family.
9. **Al-Fad'an Tribe:** they are a part of Al-Wildeh tribe and distributed in Ein Issa sub-district, starting from the bank of the Balikh River towards the west. Their chieftaincies are Al-Mheid and Ibn Hreimes families, whereas Majed Balikh subfraction are distributed in Al-Kantari town and Suluk city and their chieftaincies are Al-K'ashish and Ibn Ghabeen families.

10. **Al-Hleisat Tribe**: they descend from Al-Jabbour tribe (a tribe from the Arabian Peninsula) and are divided into Al-Ma'amrah and Al-Jadadseh. They are located in Ar-Raqqa city and on the banks of Balikh River and their chieftaincy belongs to Ahmad Al-Hammoud family.
11. **Albu Thaher Tribe**: (Al-Jamaseh) they are distributed in Jurneyyeh sub-district and Al-Hamrat town.
12. **Al-Marandiyeh Tribe**: they are distributed in multiple villages (such as Al-Mashlab), in Ar-Raqqa city and in Samra, 'Anadiyeh and Abdallah Al-Khalil towns.
13. **Albu Ramadan Tribe**: they are distributed in Sabka sub-district.
14. **Albu Rajab, Albu 'Atij and Albu Bana Tribes**: the bulk of them is concentrated in Aleppo governorate and some are located in Ar-Raqqa governorate in Kanu and Mansura villages. Their chieftain in Ar-Raqqa is Shiekh Ahamd Kanu.
15. **Al-Ojeil Tribe**: they descend from Al-Jabbour tribe and live in the western part of Ar-Raqqa governorate, such as Ath-Thawrah city (Tabaqa), Sahl, Al Hamam and Al Barouda towns and some villages affiliated with Ath-Thawrah city.
16. **Albu-Jaber Tribe**: they are located in Kdeiran, Sweidiyeh and Hunaida towns and their chieftaincy belongs to Ad-Daif family.
17. **Al-Wahab Tribe**: they descend from Shummar tribe (an Arab tribe originally from the Arabian Peninsula) and are concentrated in Ath-Thawrah sub-district (Tabaqa).
18. **Ash-Shibl Tribe**: they are distributed in multiple villages in the northern side and the northwestern corner of Ar-Raqqa governorate, such as Khneiz, Abbara, Fteih and Abu Kabra villages.
19. **Albu-Khamis Tribe**: they descend from Dalim tribe. Some of their subfractions are Al-Ali Al-Jasem, Al-Jeish, Ash-Shihab, Al-Fikrah, Al-Barashmeh, Ar-Rashed and Albu Jaber. They are distributed in villages located on the banks of the Euphrates River, and most importantly Jeidine and Zamlah towns and Mansura city. Their dignitaries are Al-Hamshar and Ar-Rashed.
20. **Al-Fardon, Albu Salem, Albu Sheikh, Al-Omeirat and Al-'Ajajin Tribes**
21. **Shibl As-Salameh Tribe**: they descend from Dalim tribe and are concentrated in Ar-Raqqa city. Their chieftaincy belongs to Ismael Al-Abed family.
22. **Al-Bayatrah Tribe**: they are concentrated in Ar-Raqqa city and its suburbs. Al-Haj, Ad-Dalli, Al-Matar, Al-Yusuf, An-Najem, Al-Farhan, Al-Hamada, Al-Fawwaz, Al-Masare'a and Ad-Darwish are some of their families.
23. **Al-Ojeili Tribe**: they descend from Albu Badran tribe (one of Deir-ez-Zor tribes) and are concentrated in Ar-Raqqa city.
24. **Al-Bleibel Tribe**: they descend from Albu Badran tribe (a tribe from Deir-ez-Zor) and are distributed in Ar-Raqqa city.
25. **Al-Hassoun Tribe**: they are distributed in Ar-Raqqa city and their chieftaincy belongs to Khalil Al-Jali family.
26. **Ash-Shuaib Tribe**: they are distributed in Ar-Raqqa city.
27. **Al-'Akrad Tribe**: they are distributed in Ar-Raqqa city and their chieftaincy belongs to Al-Khalaf Al-Qasem family.
28. **Al-Muhammad Al-Hasan Tribe**: they are distributed in Ar-Raqqa city.
29. **Al-Hleibin Tribe**: they are from Albu Salameh tribes and distributed in Ar-Raqqa city.

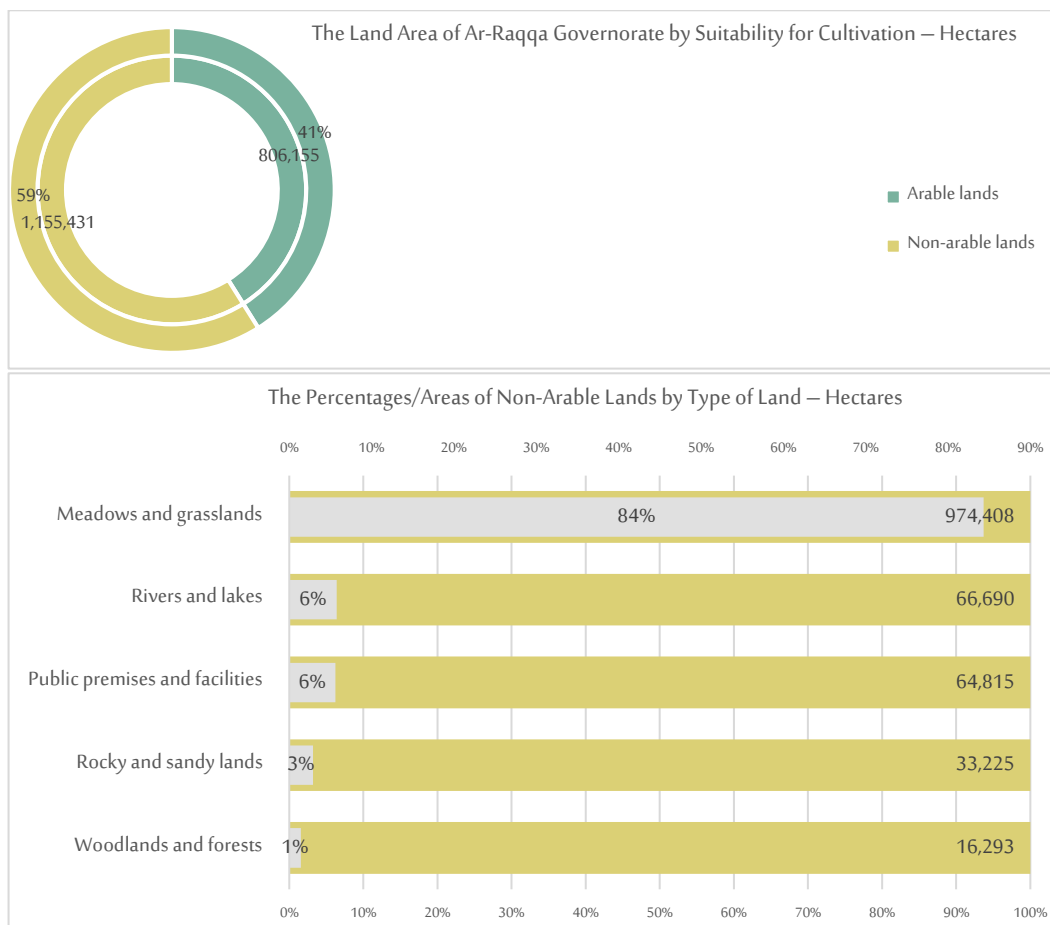
30. **Al-Bakri Tribe:** they descend from At-Tay tribe (an Arab tribe originally from the Arabian Peninsula). They are distributed in Ar-Raqqa city and their chieftaincy belongs to Al-Kakaji family.
31. **Ar-Ramadan Agha Tribe:** they are distributed in Ar-Raqqa city. Al-Sattaf, Al-Alo, Al-Kayyas and Al-Hilal are some of their families. Their chieftaincy belongs to Al-Sattaf family.
32. **Al-Qweider Tribe:** they are distributed in Ar-Raqqa city. Ahmad Al-Jumaa, Al-Mouh and Al-Alloush are some of their families.
33. **As-Safarneh Tribe:** they are concentrated in Ar-Raqqa city and its nearby countryside and were named after As-Safira sub-district in Aleppo eastern countryside. They vary in their origins and are arrivals to Ar-Raqqa from Aleppo eastern countryside.
34. **Al-Tawadfeh Tribe:** they are concentrated in Ar-Raqqa city and were named after Tadaf sub-district in Aleppo eastern countryside. They vary in their origins and came to Ar-Raqqa governorate from Aleppo eastern countryside.
35. **Albu Saraya Tribe:** they are arrivals from Deir-ez-Zor governorate and concentrated in Ar-Raqqa city.
36. **As-Sakhani Tribe:** they are concentrated in Ar-Raqqa and Tell Abiad cities and were named after Sokhneh sub-district in Homs eastern countryside. They are arrivals to Ar-Raqqa governorate and vary in their origins, such as Al-Jabbour, Al-Jis, An-Naim, Bani 'Afi, Bani Rahma and Bani Khalaf. Their chieftaincy belongs to Al-Khatib family.

SECTION V: AGRICULTURE AND IRRIGATION SYSTEMS IN AR-RAQQA GOVERNORATE

First: The Nature of Lands in Ar-Raqqa Governorate

The total area of Ar-Raqqa governorate is 1,961,586 hectares; of which 41% were arable (806,155 hectares) and 59% were non-arable (1,155,431 hectares).

Figure 1 The Land Area of Ar-Raqqa Governorate by Suitability for Cultivation

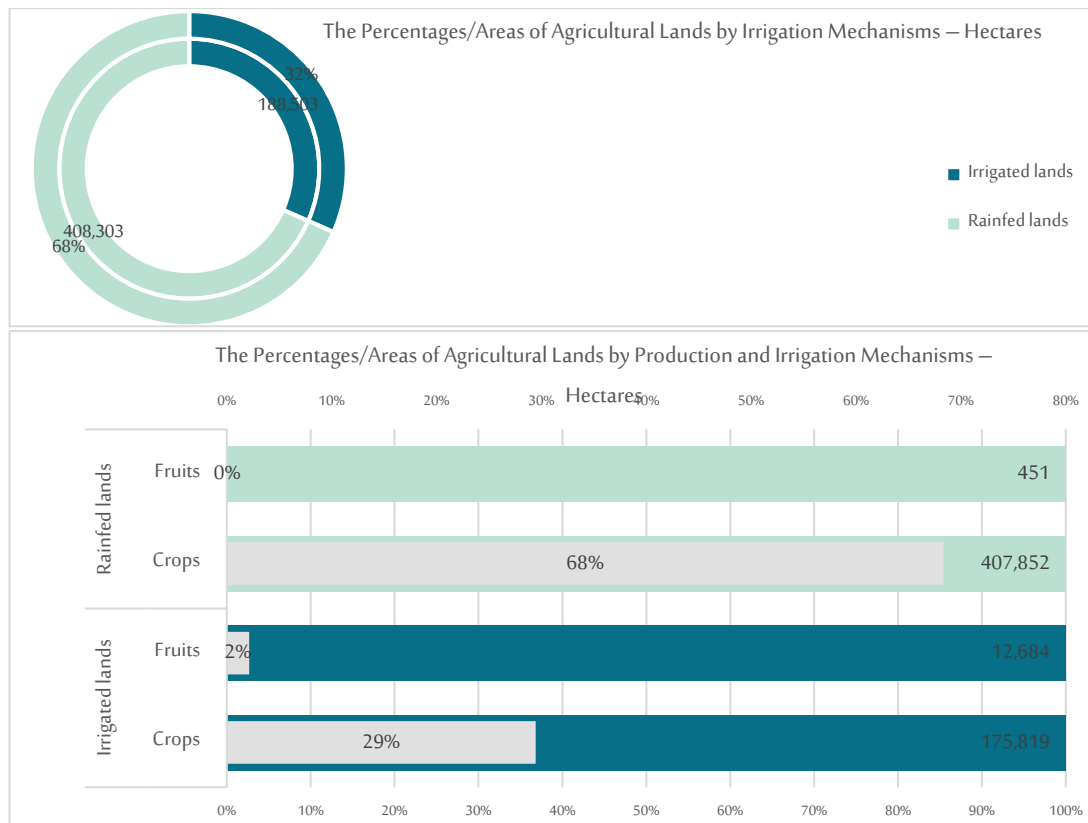


The area of arable lands was 806,155 hectares and the area of non-arable lands was 1,155,431 hectares. Meadows and grasslands formed 84% (974,408 hectares) of non-arable lands; and even though grass grows in those meadows and grasslands, their reclamation within the available capacities is considered impossible as this investment process requires removing large quantities of rocks, levelling and building agricultural terraces and raising the water level to reach those terraces. Moreover, urban constructions formed 6% (64,815 hectares), sandy and rocky lands formed 3% (33,225 hectares), woodlands and forests formed 1% (16,293 hectares) and water bodies (rivers and lakes) formed 6% (66,690 hectares) of non-arable lands.

Second: Agricultural Lands in Ar-Raqqa Governorate by Irrigation Mechanisms

Not all arable lands in Ar-Raqqa governorate are cultivated. Until 2011, the area of cultivated lands was estimated at 596,806 hectares; 32% (188,503 hectares) of which were irrigated and 68% (403,303 hectares) were rainfed.

Figure 2 Cultivated Lands in Ar-Raqqa Governorate by Irrigation Mechanisms



Ar-Raqqa governorate is characterized by its moderate climate with temperature deviations between summer and winter, as the Euphrates and the Balikh rivers and the lakes of the Euphrates and Al-Baath dams contribute to a cooler and milder climate there, let alone that vast areas of agricultural lands are irrigated from those lakes.

Moreover, Ar-Raqqa governorate is also characterized by suitable rainfalls ranging between 150 and 200-mm per year, which helped rainfed agriculture (dependent on rainfalls) to thrive there. Until 2011, rainfed areas were estimated at 408,303 hectares; 407,852 hectares of which were planted with strategic crops (wheat, barley, cotton and yellow corn), whereas 451 hectares were planted with fruit trees and vegetables.

Until 2011, irrigated areas (dependent on irrigation channels and groundwater) in Ar-Raqqa governorate were estimated at 188,503 hectares; 175,819 hectares of which were planted with strategic crops (wheat, barley, cotton and yellow corn), whereas 12,684 hectares were planted with fruit trees and vegetables.

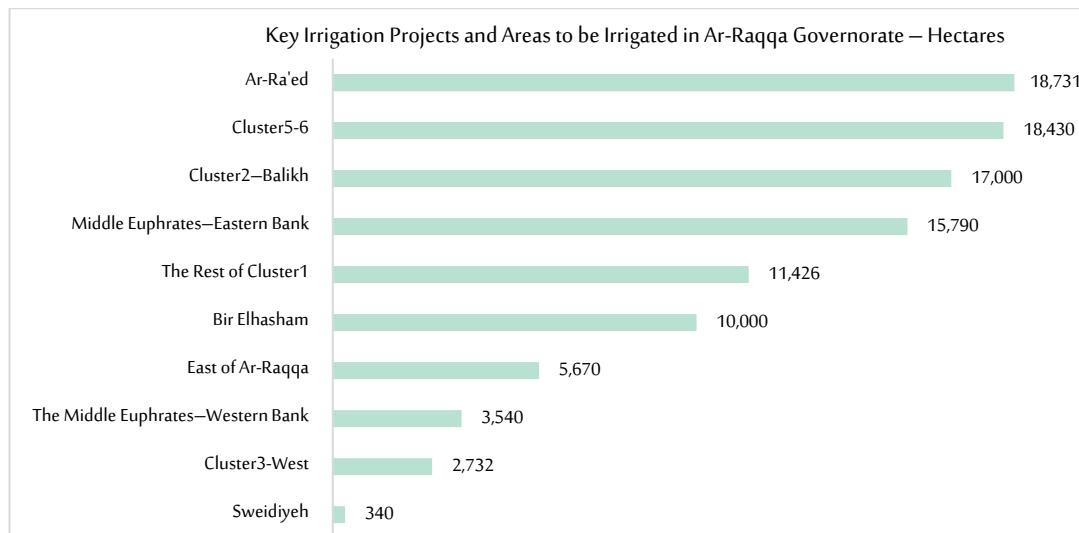
After 2011, areas of irrigated lands decreased due to destruction of the irrigation channels, malfunctions in pumping stations and engines and looting of many pumping engines. The rising prices and loss of fuel in the market constituted an obstacle to farmers' dependence on their private water pumps for drawing water from rivers or irrigation channels or extracting groundwater from wells. Further, rainfed agriculture also declined owing to battles

in the governorate, the change of control several times and displacement of large numbers of people from the governorate's villages.

Third: Irrigation Projects and Systems in Ar-Raqqa Governorate

Ar-Raqqa governorate contained 10 key irrigation projects depending on the Euphrates and Balikh rivers and the lakes of the Euphrates and Al-Baath dams and planning to irrigate a arable area estimated at 103,659 hectares in the governorate.

Figure 3 Key Irrigation Projects and Total Areas to be Irrigated in Ar-Raqqa Governorate



1. Ar-Ra'ed Project:

The project runs from Yamama town (40 km west of Ar-Raqqa city) towards Ghassaniyeh town (40 km east of Ar-Raqqa city). It flow-irrigates (flood irrigates) the lands from the beginning of the main lower canal and pump-irrigates some farms such as the farms of Hettin town. Ar-Ra'ed is considered as one of the biggest land reclamation projects in Syria. The project study was developed by the English foundation Alexander Jib in 1969 and implemented by the Italian firm Benfica and the Syrian General Corporation for the Construction of Irrigation Systems. There were technical problems in the projects owing to presence of calcareous soils. Moreover, the decision of rice cultivation without any drainage system in place during the project's establishment caused an increase in the level of water and areas of lands were out of investment due to soil salinization.

The Current Status of Ar-Ra'ed Project

A. The irrigation system: main and secondary canals are made of cement and all of the field furrows are made of soil. The main and the secondary canals include breakages and need annual maintenance. The project's efficiency decreased due to the large malfunctions in the canals and loss of huge quantities of water when we compare the quantity of water in the head of the project with it in the fields. The General Corporation for Irrigation started replacing the dirt field furrows with elevated concrete irrigation canals to reduce the quantities of lost water; however, the replacement process was stopped when the crisis began after replacing only 40% of the field furrows.

B. The drainage system: the drainage system of rainwater and groundwater in Ar-Ra'ed project is composed of open canals suffering from salinization which increased after previous rice cultivation in the district. The drainage canals need to be deepened and periodically cleaned.

C. The pumping stations: the project consists of 14 pumping stations; two basic/large stations (Al-Yamama – Najd) and 12 small substations. **Al-Yamama pumping station:** it irrigates 950 hectares of land, is composed of seven pumping sets (six main and one back-up set) and was tied up in investment in 1992. The sixth, fourth and seventh sets were rehabilitated in 2009 and Al-Yamama station is fully functional and periodically maintained. **Najd pumping station:** it irrigates 96 hectares of land, is composed of three pumping sets (two main and one back-up sets) and was tied up in investment in 1992. Najd station is periodically maintained and functional except for the third pumping set which requires rehabilitation, whereas the first set needs full maintenance even though it is operating. There are 12 small **substations** spreading along Ar-Ra'ed project; however, some of them were looted and some need maintenance.

2. The Middle Euphrates Project:

The project runs from Western Sahlabiyeh town (25 km west of Ar-Raqqa city) towards Maadan city (65 km east of Ar-Raqqa city); 100 km along the Euphrates River. Roma Grimax Foundation designed and implemented the project on three phases between 1979 and 1985 and divided it into three sections: the western bank system, Ar-Raqqa city system and the system of both Little Maghalla and Big Maghalla towns. Around 3,540 hectares of the western bank (the left bank) system are flow-irrigated from the beginning of the main lower canal. Around 11,000 hectares of Ar-Raqqa city system are pump-irrigated from the main pumping station on the Euphrates River near Ar-Raqqa New Bridge at the city's entrance. Around 6,000 hectares of Maghalla system are irrigated from Maghalla main pumping station on the Euphrates River, nearly 60 km east of Ar-Raqqa city.

The Current Status of the Middle Euphrates Project

A. The irrigation system: main and secondary canals are made of cement and all of the field furrows are made of soil. A part of the field furrows was replaced with others made of cement; however, the replacement process was stopped when the crisis began. The system showed a deficit in Sahl town due to the insufficient quantity of water in the station and presence of an opposite direction slope hindering the flow of water. The farmers overcome this predicament by using special pumps for withdrawing irrigation water. The system also showed a deficit in Maghalla system, which was overcome by installing a set of extra pumps.

B. The drainage system: the drainage system is not covered in the majority of the project's area as the natural drainage of water to the Euphrates River is sufficient, except for some areas far located from the river, as the level of groundwater has increased to impermissible levels between Eastern Sahlabiyeh and Gharnatah farm near the railroad track. A study has been conducted for implementing an underground drainage; however, this implementation was hindered when the crisis began. Currently, the cleaning works were declined and limited to cleaning the most affected drains to prevent land salinization caused by the increased water level.

C. The pumping stations: the project consists of six pumping stations designed to irrigate 20,000 hectares of land.
1) **Ar-Raqqa main pumping station:** it irrigates 11,200 hectares of land and is composed of six pumping sets (five main and one back-up set). This station was implemented by a Romanian company under auspices of the

General Company for Land Reclamation and tied up in investment in 1981. They rehabilitated the second set in 2002, the sixth set in 2003, the third set in 2004 and the fourth set in 2005. Ar-Raqqa main station withdraws its water from the Euphrates River, is periodically maintained and its pumping sets are functional by 100%, except for the first set which is unfunctional due to the collapse of the engine's insulation materials. 2) **Sahl pumping station**: it irrigates 800 hectares of land and is composed of five pumping sets (four main and one back-up set). This station was implemented by a Romanian company under auspices of the General Company for Land Reclamation and tied up in investment in 1981. They rehabilitated the first set in 2002, the fourth set in 2003, the second and fifth sets in 2004 and the third set in 2005. The Sahl station withdraws its water from the impulse canal of Ar-Raqqa main station, is periodically maintained and its third set needs full rehabilitation. 3) **Kisret Sroure pumping station**: it irrigates 298 hectares of land and is composed of four pumping sets (three main and one back-up set). This station was implemented by a Romanian company under auspices of the General Company for Land Reclamation and tied up in investment in 1981. They rehabilitated the second set in 2002, the fourth set in 2003, the third set in 2004 and the first set in 2005. Kisret Sroure station withdraws its water from the impulse canal of Ar-Raqqa main station and is periodically maintained; however, all of its pumps require repairs. 4) **Maghalla main pumping station**: it irrigates 8,000 hectares of land and is composed of six pumping sets (five main and one back-up set). This station was implemented by a Romanian company under auspices of the General Company for Land Reclamation and tied up in investment in 1985. They rehabilitated the second set in 2003, the first set in 2004 and the third set in 2009. Maghalla main station withdraws its water from the Euphrates River and is periodically maintained. 5) **Albu Hamad pumping station**: it irrigates 1,800 hectares of land and is composed of five pumping sets (four main and one back-up set). This station was implemented by a Romanian company under auspices of the General Company for Land Reclamation and tied up in investment in 1985. They rehabilitated the second set in 2003, the third set in 2004, the fifth set in 2009, whereas the fourth set is still in the phase of rehabilitation. Albu Hamad station withdraws its water from the impulse canal of Ar-Raqqa main station and is periodically maintained; however, the second, the third and the fifth pumping sets need repairs. 6) **Sweida pumping station**: it irrigates 560 hectares of land and is composed of three pumping sets (two main and one back-up set). This station was implemented by a Romanian company under auspices of the General Company for Land Reclamation and tied up in investment in 1985. They rehabilitated the second set in 2003, the first set in 2004 and the third set in 2005. Sweida station withdraws its water from the impulse canal of Maghalla main pumping station, is periodically maintained and functional by 100%.

3. **Bir Elhasham Project**: it is 15 km north of Ar-Raqqa city. The English foundation Alexander Jib set the project's plan in 1967, whereas the Bulgarian firm Techno-Export set its executive designs in 1972. The project was implemented and tied up in investment in 1985 as part of Balikh River Irrigation Project to irrigate 10,000 hectares through pump-irrigation from the canal of the Western Sahlabiyeh town, which is supplied with water from the Euphrates Dam Lake, and by flow-irrigation too. Further, the project is composed of four subsidiary pumping stations.

The Current Status of Bir Elhasham Project

- A. The irrigation system:** main and secondary canals are made of cement and the field furrows are precast concrete canals. Due to collapses in some parts, some of the field canals were replaced with elevated concrete irrigation canals, whereas some other parts still need to be replaced, as the project's efficiency declined due to the large amount of collapses in the field irrigation canals.
- B. The drainage system:** the drainage system of rainwater and groundwater in the project is composed of open canals. The soil is salinized, which necessitated the installation of a covered system for the entire project; however, the installation process was stopped when the crisis began.
- C. The pumping stations:** the project consists of five pumping stations designed to irrigate 18,000 hectares of land.
- 1) **Bir Elhasham main pumping station**: it irrigates 10,000 hectares of land and is composed of four pumping sets (three main and one back-up set). This station was implemented by Safa Corporate in cooperation with Alstom French Foundation and under auspices of the General Company for Land Reclamation and tied up in investment in 1985. The four pumping sets were rehabilitated in 2001, the second set was fully repaired in 2003, the thermocontrol system was renewed in 2001 and boost convertors were installed in 2004. Bir Elhasham station withdraws its water from Western Sahlabiyeh canal, is periodically maintained and functional by 100%, except for the first set which requires full rehabilitation.
 - 2) **High-Lift pumping station**: it irrigates 5,203 hectares of land and is composed of four pumping sets (three main and one back-up set). This station was implemented by Safa Corporate in cooperation with Alstom French Foundation and under auspices of the General Company for Land Reclamation and tied up in investment in 1985. The High-Lift pumping station withdraws its water from its impulse canal, its boost convertors were installed in 2004, is periodically maintained and functional by 100%.
 - 3) **The Fifth pumping station**: it irrigates 329 hectares of land and is composed of three pumping sets (two main and one back-up set). This station was implemented by Safa Corporate in cooperation with Alstom French Foundation and under auspices of the General Company for Land Reclamation and tied up in investment in 1985. They installed its boost convertors in 2004 and rehabilitated the second set in 1998, the first set in 2008 and the third set in 2010. The Fifth pumping station withdraws its water from the impulse canal of the High-Lift station, is periodically maintained and functional by 100%.
4. **The Rest of Cluster1 Project**: it runs for 40 km from Western Sahlabiyeh village on the west towards Tal Elsamem village on the north. It flow-irrigates around 11,000 hectares of land through the main lower canal, which is supplied with water from the Euphrates Dam Lake. The Bulgarian firm Acro-Complict developed the project study and the General Corporation for the Construction of Irrigation Systems implemented the project which was tied up in investment in 1989 on phases.

The Current Status of the Rest of Cluster1 Project

- A. The irrigation system:** main and secondary canals are made of cement and the field furrows are elevated concrete canals.
- B. The drainage system:** the drainage system was implemented on two phases: 1) **First phase**: an open drainage system simultaneously implemented when the project commenced. 2) **Second phase**: a covered drainage system which implementation began in 2003 then stopped when the crisis began after completing 60% of the system.

5. **The Cluster2–Balikh Project:** it runs from Kalta town (30 km north Ar-Raqqa) towards Jazaret Elbuhmeid (70 km north). It flow-irrigates around 17,000 hectares of land through the main lower canal, which is supplied with water from the Euphrates Dam Lake. The project was implemented by the General Company for Water Projects and the Military Housing Establishment and tied up in investment on phases from 1955 to 2005.

The Current Status of the Cluster2–Balikh Project

- A. **The irrigation system:** main and secondary canals are made of cement and the field furrows are elevated concrete canals.
- B. **The drainage system:** the drainage system is uncovered. It was planned to start installing a covered drainage system before the crisis.

6. **The Cluster3–West Project:** it irrigates 2,700 hectares of land and is composed of two phases: 1) **First phase:** it flow-irrigates 1,052 hectares of land and is located around 40 km west of Ar-Raqqa city, near Big Sweidiyeh town. This cluster withdraws its water from Big Sweidiyeh town’s pumping station, which is supplied with water from the Euphrates Dam Lake. The project study was developed by the General Company for Water Studies and implemented by Safa Private Company. The project was tied up in investment in 2005. 2) **Second phase:** it flow-irrigates 1,680 hectares of land and is located around 40 km southwest of Ar-Raqqa city, near Widyan town. This cluster withdraws its water from Widyan’s first pumping station established on the main lower canal, which is supplied with water from the Euphrates Dam Lake. The project was tied up in investment in 2006.

The Current Status of the Cluster3–West Project

- A. **The irrigation system:** it is composed of compressed pipes.
- B. **The drainage system:** a covered drainage system for the entire project, as it was installed upon the project’s commencement.
- C. **The pumping stations:** the project consists of three pumping stations. 1) **Sweidiyeh pumping station:** it irrigates 1,052 hectares of land and is composed of four pumping sets (three main and one back-up set). This station was implemented by Safa Corporate under auspices of the General Company for Land Reclamation and tied up in investment in 2006. The Sweidiyeh station is periodically maintained and functional by 100%. 2) **The Widyan’s first pumping station:** it irrigates 1,680 hectares of land and is composed of seven pumping sets (six main and one back-up set). This station was implemented by ART Corporate under auspices of the General Company for Land Reclamation and tied up in investment in 2007. It is periodically maintained and functional by 100%. 3) **The Widyan’s second pumping station:** it irrigates 478 hectares of land and is composed of four pumping sets (three main and one back-up set). This station was implemented by ART Corporate under auspices of the General Company for Land Reclamation and tied up in investment in 2007. It is periodically maintained and functional by 100%.

7. **The Sweidiyeh Project:** it is located near Western Sahlabiyeh town, 35 km west of Ar-Raqqa city. It irrigates 340 hectares of land and was tied up in investment in 1999.

The Current Status of the Sweidiyeh Project

- A. **The irrigation system:** main and secondary canals are made of cement and the field furrows are elevated concrete canals. The status of the irrigation system is good.
- B. **The drainage system:** an open drainage system that requires periodic cleaning (cleaning and deepening).

8. **The Cluster5-6Balikh Project:** it irrigates 19,000 hectares of land and runs from Tal Elsamen town, which is 30 km north of Ar-Raqqa city, towards Hammam At-Turkman town, which is 70 km north of Ar-Raqqa city. The project is divided into two phases: 1) **First phase:** it runs from Tal Elsamen town to Hisheh town and irrigates 7,000 hectares of land. The first phase/cluster is supplied with water through Tal Elsamen town's pumping station, which is supplied from the Euphrates Dam Lake, and was tied up in investment in 2005. 2) **Second phase:** it runs from Hisheh town towards Hammam At-Turkman town and irrigates 12,000 hectares of land. This cluster was tied up in investment in 2008.

The Current Status of the Cluster5-6Balikh Project

- A. **The irrigation system:** main and secondary canals are made of cement and the field furrows are elevated concrete canals. The status of the irrigation system is good.
- B. **The drainage system:** a covered drainage system for the entire project, as it was installed upon the project's commencement.
- C. **The pumping stations:** the project consists of three pumping stations. 1) **Tal Elsamen pumping station:** it irrigates 18,430 hectares of land and is composed of six pumping sets (five main and one back-up set). This station was tied up in investment in 1972 and stopped working in 1982 as intakes from the Euphrates Dam were established for flow-irrigation. Those sets were rehabilitated by the Military Housing Establishment in cooperation with Alstom French Foundation and under auspices of the General Company for Land Reclamation to serve Tal Elsamen village. The station was equipped with a modern control system and back in service in 2005. Tal Elsamen station is periodically maintained; however, huge problems emerged when the station was reactivated in 2014, which requires full maintenance. 2) **Balikh2 (Hisheh) pumping station:** it irrigates 12,000 hectares of land and is composed of six pumping sets (five main and one back-up set). It was tied up in investment in 2008, equipped with a modern control system and periodically maintained. 3) **Hisheh station for drinking water:** it supplies the villages of the northern district with drinking water and is composed of five main sets and two auxiliary sets.

9. **East of Ar-Raqqa Project:** it is located 10 km east of Ar-Raqqa city and runs from Tawi Rumman town towards Karama sub-district, which is 30 km away from Ar-Raqqa city. The project irrigates 5,670 hectares of crops in Hamrat Ghannam, Hamrat Buwaityeh, Hamrat Nasser and Hamrat Balasim villages and Karama sub-district towns.

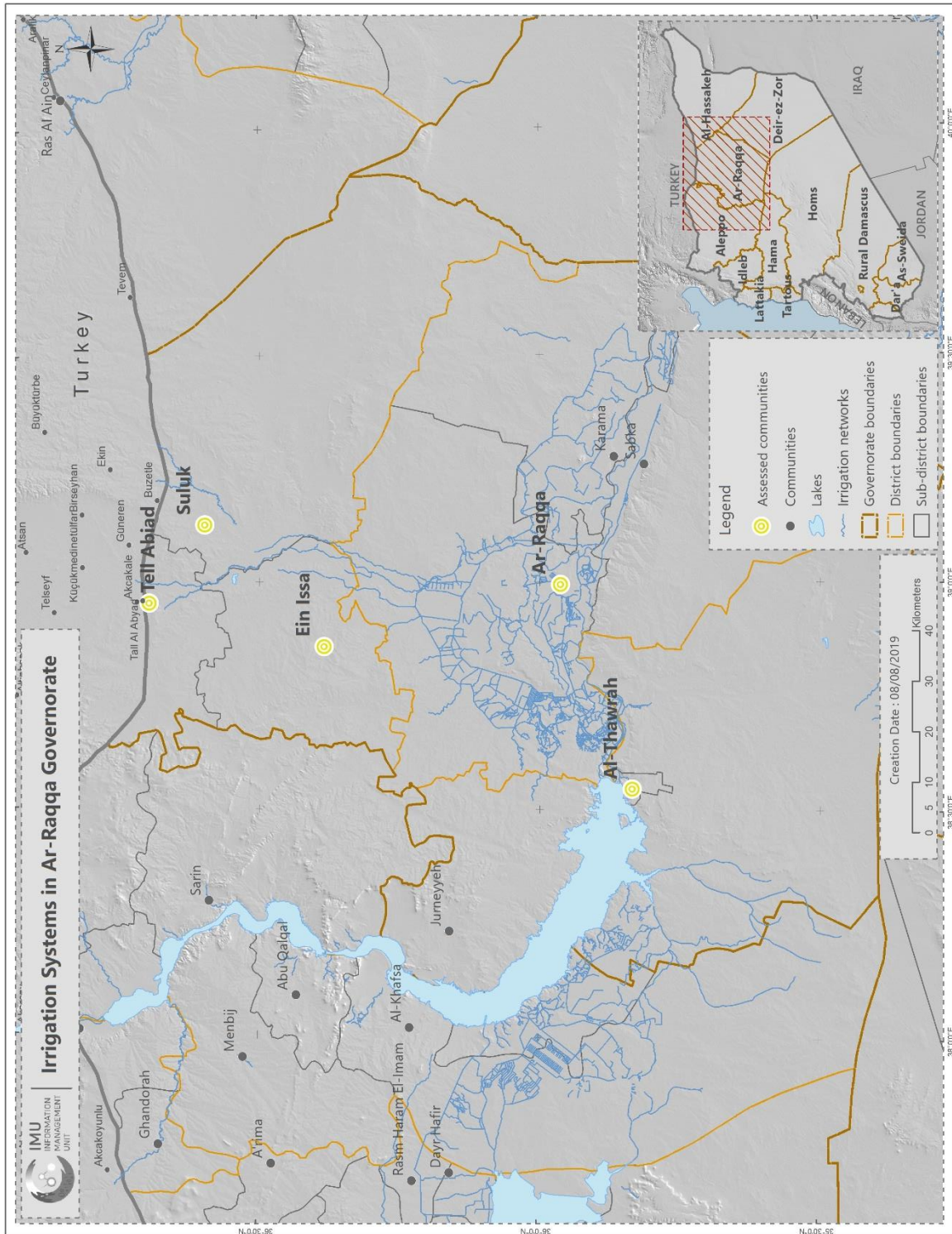
The Current Status of the East of Ar-Raqqa Project

A. The irrigation system: it irrigates by pumping the water and is divided into two clusters: 1) Hamrat cluster: it withdraws its water from the Euphrates River through Tawi Rumman pumping station and via an irrigation canal. After that, the Hamrat station pumps the water through three pipes and then into the irrigation system via irrigation outlets opening and closing by an irrigation program developed by the system's operator. This cluster irrigates 4,290 hectares of land. 2) Karama cluster: it withdraws its water from the Euphrates River through the Karama pumping station, and then pumps it into the system through irrigation outlets opening and closing by an irrigation program developed by the system's operator. This cluster irrigates 1,380 hectares of land.

B. The drainage system: it is operating well and does not require any cleaning for it was recently established.

C. The pumping stations: the project consists of three pumping stations. 1) Tawi Rumman pumping station: it irrigates 4,500 hectares of land, in design, and 4,290 hectares, in practice, consists of six pumping sets (five main and one back-up set) and was tied up in investment in 2012. Tawi Rumman station is periodically maintained; however, the piling dirt (mud) in the Euphrates riverbed obstacles the pump's performance, which necessitates constant cleaning of the withdrawal basin. This dirt piles up in the Euphrates riverbed after the mouth of the Balikh River, which demonstrates a need to shift the river's estuary to another spot behind the station and establish concrete mattresses to prevent the accumulation of dirt. 2) Hamrat pumping station: it irrigates 4,500 hectares of land, in design, and 4,290 hectares, in practice. It consists of 14 pumping sets (11 main and three back-up sets), was tied up in investment in 2012 and is periodically maintained. 3) Karama pumping station: it irrigates 3,000 hectares of land, in design, and 1,380 hectares, in practice. It consists of six pumping sets (four main and two back-up sets), was tied up in investment in 2012 and is periodically maintained.

Map 2 Irrigation Systems in Ar-Raqqa Governorate



Fourth: Grain Centers in Ar-Raqqa Governorate

Ar-Raqqa governorate contained 25 centers for storing wheat (or the so-called wheat silos); four of which were large concrete silos with a storage capacity of 100,000 tons each and 20 metal silos with a storage capacity of 12,000 tons each. The storage capacity of Tell Abiad silo was 4,000 tons and the total storage capacities of Ar-Raqqa governorate silos were 644,000 tons. All silos in the governorate suffered from partial or total destruction and needed rehabilitation.

Table 1 Grain Centers in Ar-Raqqa Governorate

#	Name of Grain Center/Silo	Storage Capacity/Ton	Type of Silo	City/Village
1	Ar-Raqqa Silos Center	100,000	Concrete	Ar-Raqqa city
2	Sharkrak Silos Center	100,000	Concrete	Sharkrak
3	Albu Assi Silos Center	100,000	Concrete	Albu Assi
4	Hunaida Silos Center	100,000	Concrete	Hunaida
5	Balikh Center	12,000	Metal	Balikh
6	Ar-Rifqa Center	12,000	Metal	Ar-Rifqa
7	Kalta Center	12,000	Metal	Kalta
8	Kantari Center	12,000	Metal	Kantari
9	Dehiz Center	12,000	Metal	Dehiz
10	Suluk Center	12,000	Metal	Suluk
11	Rashid Center	12,000	Metal	Rashid
12	Al Sakhrat Center	12,000	Metal	Qabl Ein Al-Arus
13	Tell Abiad Center	4,000	Metal	Tell Abiad
14	Khafiyeh Center	12,000	Metal	Khafiyeh
15	Ein Issa Center	12,000	Metal	Ein Issa
16	Mashrafa Center	12,000	Metal	Mashrafa
17	Debsi Afnan Center	12,000	Metal	Debsi Afnan
18	Mansura Center	12,000	Metal	Mansura
19	Salhabiyeh Center	12,000	Metal	Salhabiyeh
20	Jurneyyeh Center	12,000	Metal	Jurneyyeh
21	Bader Center	12,000	Metal	Bader
22	Khas Alej Center	12,000	Metal	Khas Alej
23	Bir Elhasham Center	12,000	Metal	Bir Elhasham
24	Sabka Center	12,000	Metal	Sabka
25	Maadan Center	12,000	Metal	Maadan
Total		644,000		

SECTION VI: AR-RAQQA CITY

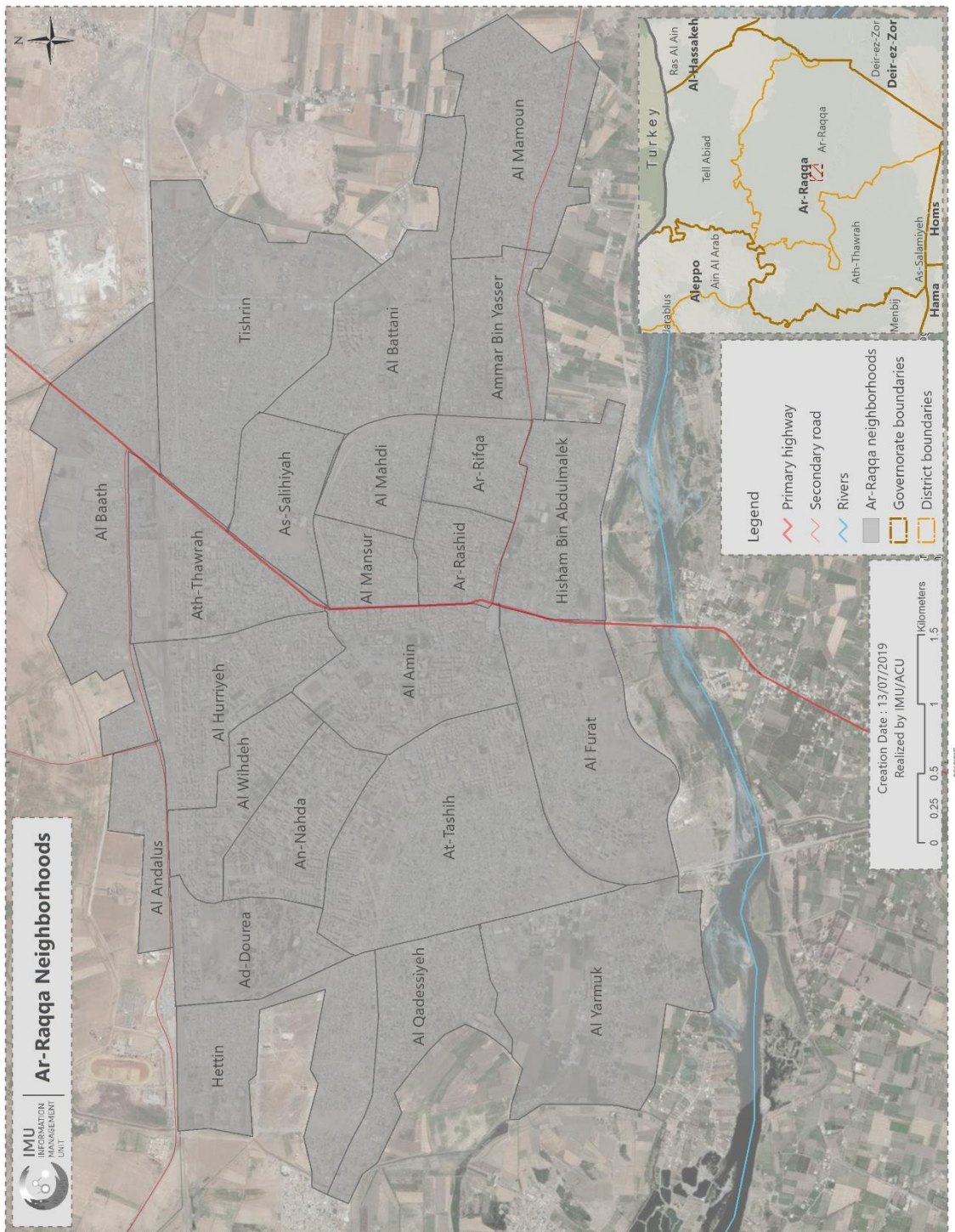
First: The Neighborhoods of Ar-Raqqa City

- 1) **First Cluster:** it includes Hettin, Al Qadessiyeh and Al Yarmuk neighborhoods, which are located in the western part of the city, stretching from Al-Jazarah town's junction to Al Yarmuk neighborhood, near the Panorama Roundabout on the Euphrates River. Those neighborhoods contain 11,990 families originally from Tadaf and As-Safira sub-districts in Aleppo eastern countryside, in addition to families from Ar-Raqqa tribes and internally displaced families from Deir-ez-Zor governorate. The residents are day-laborers in the Museum Square or in wholesale shops and few of them worked in agriculture. The bulk of their housings are composed of a single storey "known as traditional courtyard houses". Those neighborhoods have a very small percentage of destruction and one completely destroyed school.
- 2) **Second Cluster:** it includes Al Furat and Hisham Bin Abdulmalek neighborhoods, stretching from Baghdad Gate in the eastern corner of the city, through the Cultural Center and Hisham Bin Abdulmalek street to Aleppo street up to Al Furat neighborhood. Those neighborhoods contain 5,918 families mostly from Tadaf sub-district in Aleppo eastern countryside, in addition to families from Ar-Raqqa tribes, such as Al-Kous, Shibl As-Salameh and Ash-Shuaib tribes. The residents work in trade, some of them own their commercial shops in Al-Quwatli Street (Al-Kous and Ash-Shuaib shops) and some are day-laborers. 40% of their housings are composed of a single storey and 60% are multi-storey buildings. The percentage of destruction in those neighborhoods was not big, except for few buildings and two completely destroyed schools.
- 3) **Third Cluster:** it includes Ammar Bin Yasser and Al Mamoun neighborhoods, which are inhabited by 7,450 families mostly from Al-'Afadleh and Al-Hleisat tribes. Those neighborhoods have luxurious single-storey houses (villas). 96% of their housings are composed of a single storey and 4% are multi-storey buildings. The bulk of their residents work in agriculture and own vast tracts of agricultural lands; however, their economic condition is deteriorated owing to the deteriorating condition of agriculture in the governorate, which forced them to work in the Industrial Area and own shops there. Nonetheless, the living condition of those neighborhoods' residents remains good when compared to the city's other neighborhoods. The percentage of destruction in those neighborhoods was not big; there is the completely destroyed Uwais al-Qarni Mosque by ISIL and the partially destroyed Industrial School and Faculty of Science.
- 4) **Fourth Cluster:** it includes Ar-Rifqa, Al Mansur, Ar-Rashid and Al Mahdi neighborhoods, which are inhabited by around 6,716 families. Those neighborhoods are trade markets and 10% of their housings are composed of a single storey and 90% are multi-storey buildings (ground floors are for commercial shops). There is little destruction in the neighborhoods' buildings, except for some buildings and the Great Mosque. The bulk of their residents are from Ar-Raqqa tribes (such as Al-Hassoun, Al-Jikat, Al-Haj 'Abo and Ar-Ramadan Agha tribes), in addition to internally displaced families from Deir-ez-Zor governorate. A part of the residents are day-laborers, in addition to a little percentage owning their commercial shops (such as the wholesale shops of Al-Hassoun family).
- 5) **Fifth Cluster:** it includes Al Baath, As-Salihyah, Al Battani, Ath-Thawrah and Tishrin neighborhoods, which are located in the northeastern corner of Ar-Raqqa city, stretching from the Silos Roundabout from the east towards the south up to Rmeileh, Al Battani and As-Salihyah neighborhoods. Those neighborhoods are

inhabited by around 8,261 families, whose financial conditions are deteriorated; 80% of them are day-laborers, 10% own their commercial shops and 10% are fighters with the controlling party. 95% of their housings are composed of a single storey and 5% are multi-storey buildings, and the estimated destruction in those building is by 20%. The residents are from Ar-Raqqa tribes, some are from As-Safira sub-district in Aleppo eastern countryside, in addition to internally displaced families from Deir-ez-Zor governorate.

- 6) **Sixth Cluster:** it includes Al Hurriyeh, Al Wihdeh, Al Andalus and An-Nahda neighborhoods, stretching from the Silos Roundabout on the north towards the Farms Roundabout on the west. Those neighborhoods are inhabited by around 4,715 families mostly from Ar-Raqqa city and some are internally displaced families from Abu Kamal district in the east of Deir-ez-Zor governorate. 98% of their housings are composed of a single storey and 2% are multi-storey buildings, the majority of which is destroyed. Those neighborhoods are destroyed by 50%, in addition to existence of many uncleared mines constantly exploding with the residents. 80% of the residents are day-laborers, 10% own their commercial shops and 10% are fighters with the controlling party. The neighborhoods' inhabitants are from the poorer strata.
- 7) **Seventh Cluster:** it includes Ad-Dourea and At-Tashih neighborhoods and is located in the northwestern part of Ar-Raqqa city. Those neighborhoods contain around 4,927 families and are destroyed by over 70%. 60% of their housings are composed of a single storey and 40% are multi-storey buildings. A large number of those families were internally displaced from Deir-ez-Zor and Aleppo governorates, in addition to residents from Ar-Raqqa tribes. 90% of the residents are day-laborers and 10% are fighters with the controlling party.

Map 3 The Neighborhoods of Ar-Raqqa City

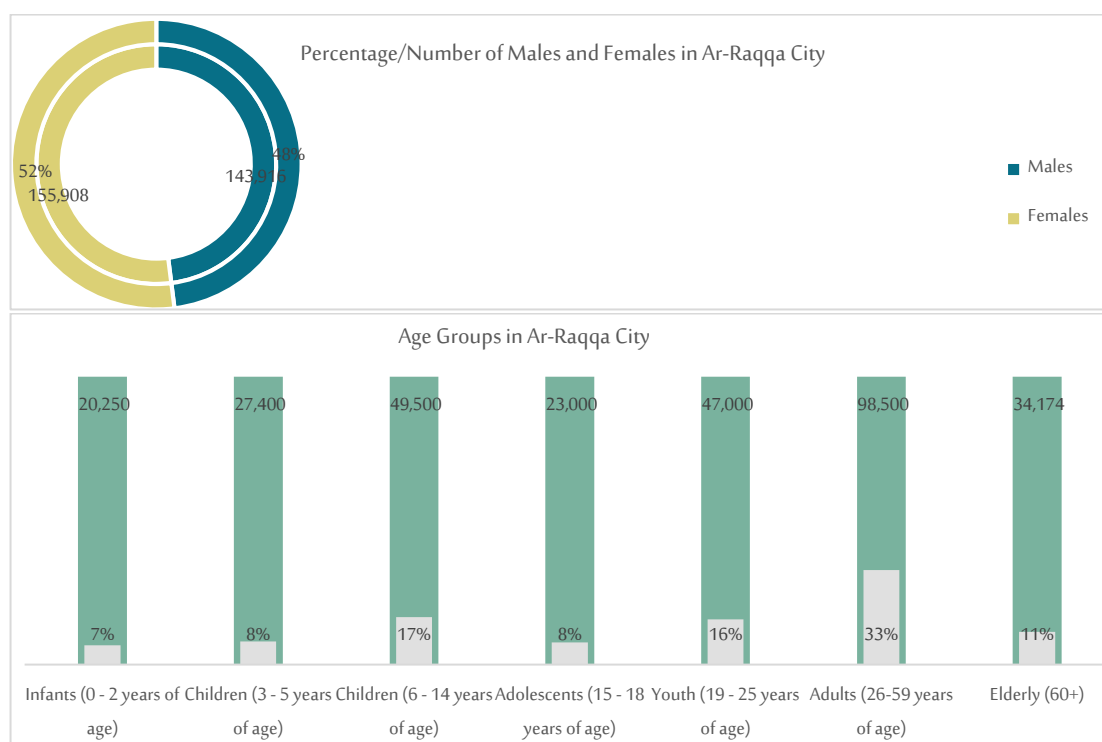


Second: The Demographic Composition of Ar-Raqqa City

1. The Population Census and Age Groups in Ar-Raqqa City

According to population statistics conducted by the IMU enumerators, of the ACU, Ar-Raqqa city had a population of 299,824 people in June 2019; of which females constituted 52% (155,908 females) and males constituted 48% (143,916 males).

Figure 4 The Population Census by Gender and Age Groups in Ar-Raqqa City



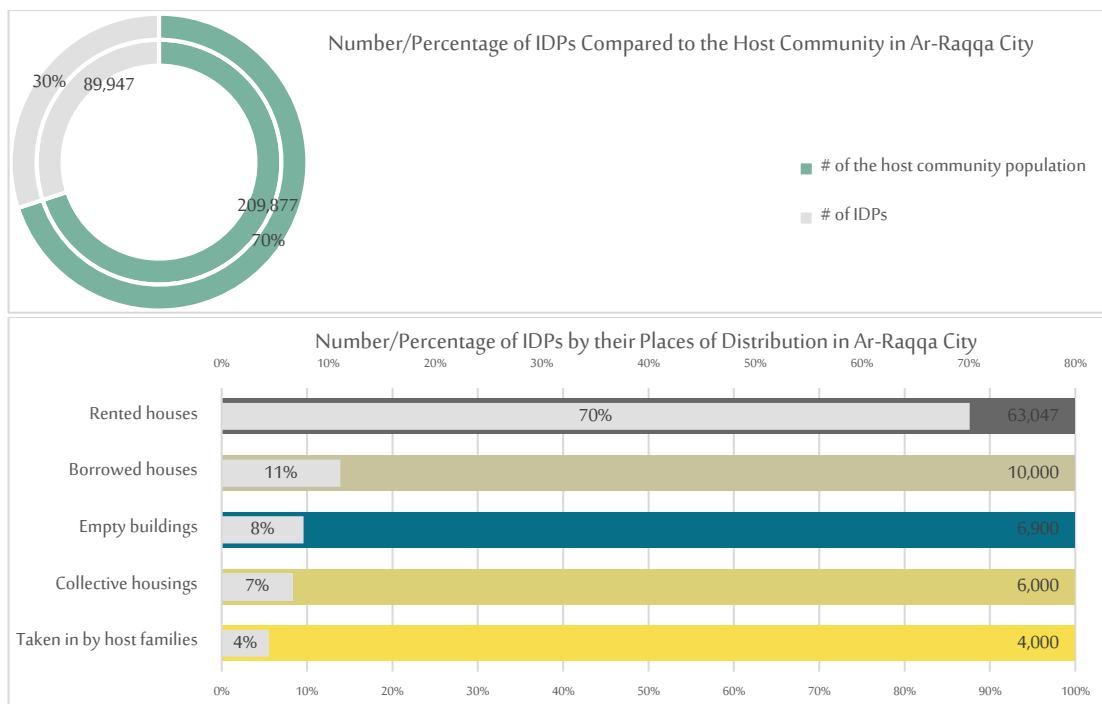
The western part of the city was the most populous and included Hettin, Al Qadessiyeh and Al Yarmuk neighborhoods, which were inhabited by 11,990 families, according to statistics conducted by the IMU. On the other hand, the northwestern part of the city was less populated and included Al Hurriyeh, Al Wihdeh, Al Andalus and An-Nahda neighborhoods, which were inhabited by 4,715 families and contained the largest percentage of destruction by 50% of housings and many uncleared mines too.

The age group of infants constituted 7% (20,250 infants) of the population of Ar-Raqqa City, whereas children between 3-5 years of age formed 8% (27,400 children) and children between 6-14 years of age – the primary school-aged children - formed 17% (49,500 children) of the city's population. Adolescents between 15-18 years of age constituted 8% (23,000 adolescents), youth between 19-25 years of age formed 16% (47,000 young people), adults between 26-59 years of age formed 33% (98,500 adults) and elderly people over 60 years of age formed 11% (34,174 people).

2. The IDPs and their Distribution Places in Ar-Raqqa City

In Ar-Raqqa city, there were 89,947 IDPs, constituting 30% of the city's population, and 209,877 host community members, constituting 70% of the city's population.

Figure 5 IDPs and their Distribution Places in Ar-Raqqa City



Even though the Syrian crisis started in 2011, Ar-Raqqa city remained under the regime control till the 4th of March 2013, and owing to the availability of services in the city at that time, it became a destination for IDPs from Deir- ez-Zor governorate and Aleppo eastern countryside, which were witnessing daily battles between the regime and the opposition forces. When the regime was losing control over Ar-Raqqa city, its battles against the opposition forces lasted for few days only, which did not cause significant displacement waves at that time. The population displacement from the city began when ISIL seized it reaching a peak during the battles between the ISIL and the Global Coalition-backed PKK. When the PKK seized the city, a part of its population returned to it, along with IDPs from Deir- ez-Zor governorate, Aleppo eastern countryside and other governorates as well.

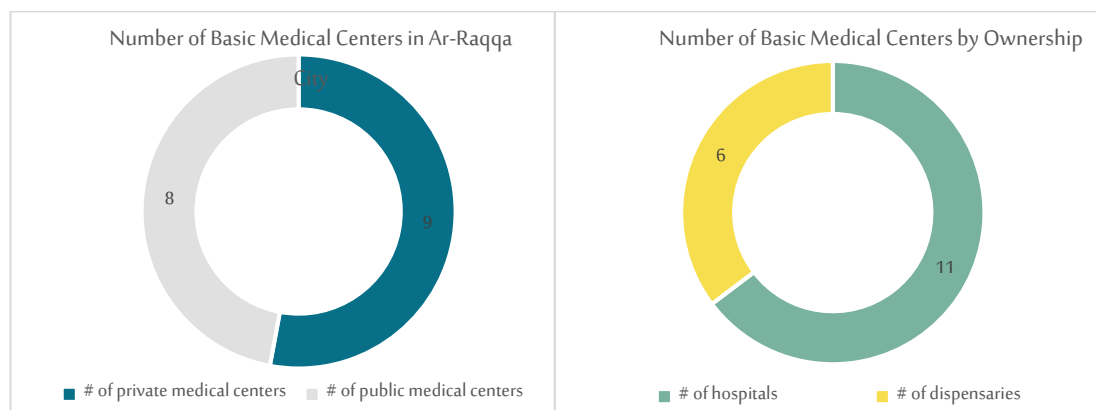
At the time of this report, the number of IDPs in Ar-Raqqa city was 89,947 IDPs. 70% (63,047 IDPs) of the IDPs stayed in rented housings, some of which were not fully equipped, 11% (10,000 IDPs) of the IDPs stayed in borrowed housings for free, 8% (6,900 IDPs) of the IDPs stayed in empty buildings, the partially or completely destroyed or partially constructed housings, 7% (6,000 IDPs) of the IDPs stayed in collective housings, and most importantly in Al-Masbah Building in Al Furat neighborhood, Al-Ziraa Building in Al Yarmuk neighborhood and a number of partially or completely destroyed schools, and the remaining 4% (4,000 IDPs) of IDPs were taken in by host families.

Third: The Health Sector in Ar-Raqqa City

1. Entities Supervising and Supporting the Medical Sector in Ar-Raqqa City

Ar-Raqqa city included 17 basic medical points; 11 hospitals and six dispensaries, in addition to a large number of private clinics and analysis laboratories that were not included in this report.

Figure 6 Numbers of Hospitals and Dispensaries in Ar-Raqqa City



Ar-Raqqa city contained 11 hospitals; four of which were non-functional and destroyed by shelling (As-Salam, Al-Ahli, Al-Hajwan and Al-Hikma hospitals), and seven were functional. The functional hospitals included five privately-owned ones (the Modern Medicine, Al-Furat, Dar Ash-Shifaa, Al-Mashhadani and Ar-Risalah hospitals) non-supported by any entity, and two publicly-owned ones (the public National Hospital supported by MSF, Medical Relief and Handicap international NGOs, and the public Maternity and Pediatrics Hospital supported by Syria Relief local NGO). Further, Ar-Raqqa city contained six publicly owned dispensaries supported by Un Ponte Per-UPP (an Italian NGO), MSF, Al Sawsan Association for Development & Health Care (local NGO), Bahar Organization (local NGO) and the so-called Kurdish Red Crescent.

Table 2 Information of Medical Centers in Ar-Raqqa City

#	Name of Hospital/Dispensary	Supervising Entity	First Donating Entity	Second Donating Entity
1	Modern Medicine Hospital	Private owner	None	-
2	Al-Furat Hospital	Private owner	None	None
3	The National Hospital	Health Office - PKK	Médecins Sans Frontières	Medical Relief & Handicap International NGOs
4	Dar Ash-Shifaa Hospital	Private owner	None	None
5	Al-Mashhadani Hospital	Private owner	None	None
6	The Maternity and Pediatrics Hospital	Health Office - PKK	Syria Relief	None
7	Ar-Risalah Hospital	Private owner	None	None
8	As-Salam Hospital	Non-functional	Destroyed by shelling	
9	Al-Ahli Hospital	Non-functional	Destroyed by shelling	
10	Al-Hajwan Hospital	Non-functional	Destroyed by shelling	
11	Al-Hikma Hospital	Non-functional	Destroyed by shelling	
12	The Kurdish Red Crescent Dispensary	Health Office - PKK	Kurdish Red Crescent	Un Ponte Per-UPP (UPP-Italian NGO)
13	Saif Al-Dawla Dispensary	Health Office - PKK	Kurdish Red Crescent	
14	Al-Sawsan Dispensary	Al Sawsan Association for Development & Health Care	Al Sawsan Association for Development & Health Care	
15	Bahar Dispensary	Bahar Organization	Bahar Organization	
16	Al-Mashlab Dispensary	Médecins Sans Frontières	Médecins Sans Frontières	
17	Khatuniya Dispensary	Health Office - PKK	Kurdish Red Crescent	

2. Medical Cadres and Specializations in Ar-Raqqa City

Hospitals and dispensaries in Ar-Raqqa city contained 176 doctors; 19 females and 157 males. Those numbers do not reflect the actual condition of medical cadres there, as a part of the doctors work in more than one hospital in the city and might be working in other hospitals in neighboring cities, also a large number of doctors work in their private clinics, which were not mentioned in this report. The medical specializations in Ar-Raqqa city basic medical centers included general surgery, pediatrics, internal medicine, gynecology, neurology, urology, ophthalmology, otolaryngology, pulmonology, orthopedics, endocrinology and radiology. There were 111 male nurses and 145 female nurses in the city's hospitals and dispensaries, in addition to 55 technicians from various specializations, 36 administrators and 56 cleaning/maintenance staff.

Table 3 Information of Medical Cadres in Ar-Raqa City

#	Name of Hospital/Dispensary	Total # of Physicians	Medical Specialties	# of Female Physicians	# of Male Nurses	# of Female Nurses	# of Technicians	# of Administrators	# of Cleaning/Maintenance Staff
1	Modern Medicine Hospital	37	General surgery Pediatrics Internal medicine Gynecology Ophthalmology Orthopedics Neurology	0	15	18	11	3	5
2	Al-Furat Hospital	31	Gynecology Pediatrics General surgery Internal medicine Neurology Urology Orthopedics	5	13	20	9	4	8
3	The National Hospital	30	General surgery Internal medicine Orthopedics Pediatrics Cardiology Physical therapy	2	18	25	8	3	12
4	Dar Ash-Shifaa Hospital	20	General surgery Internal medicine Orthopedics Pediatrics Gynecology	3	14	17	5	2	4
5	Al-Mashhadani Hospital	15	Gynecology Pediatrics General surgery Internal medicine Neurology Orthopedics	2	12	15	4	2	5
6	The Maternity and Pediatrics Hospital	6	Pediatrics Gynecology	2	5	12	6	3	5
7	Ar-Risalah Hospital	20	General surgery Pediatrics Internal medicine Gynecology Ophthalmology Orthopedics Otolaryngology Neurology Radiology	1	7	13	5	7	3
8	The Kurdish Red Crescent Dispensary	3	General medicine Internal medicine Pediatrics	2	6	6	2	3	4
9	Saif Al-Dawla Dispensary	2	Pediatrics Internal medicine	0	4	4	1	2	2

10	Al-Sawsan Dispensary	3	Pediatrics Internal medicine Gynecology	0	4	4	1	2	2
11	Bahar Dispensary	4	Pediatrics Internal medicine Gynecology	1	5	3	1	2	2
12	Al-Mashlab Dispensary	4	Pediatrics Internal medicine Gynecology	1	6	6	2	2	2
13	Khatuniya Dispensary	1	General medicine	0	2	2	0	1	2
Total		176		19	111	145	55	36	56

3. Equipment of Medical Centers in Ar-Raqqa City

The hospitals of Ar-Raqqa city contained 17 equipped operation rooms and 175 patient beds. The Modern Medicine and Ar-Risalah hospitals had a CT scan machine, unlike the other hospitals. The National Hospital was the only equipped hospital for dialysis, and despite scarcity of items and requirements of dialysis, patients streamed to it from all over Ar-Raqqa governorate. All hospitals and dispensaries had their generators, which needed 17-36 liters of diesel per working hour. It is reported that the public electricity grid was non-functional in Ar-Raqqa city, which demonstrates the need to secure large quantities of diesel for generators operating for over 16 hours daily.

Table 4 Equipment of Medical Centers in Ar-Raqqa City

#	Name of Hospital/Dispensary	# of Equipped Operation Rooms	# of Patient Beds	Is there a CT Scan?	Is the Hospital Equipped for Dialysis?	# of Generators?	Quantity of Diesel Needed for the Generators per Working Hour
1	Modern Medicine Hospital	4	35	Yes	No	1	17
2	Al-Furat Hospital	3	40	No	No	1	17
3	The National Hospital	2	14	No	Yes	2	36
4	Dar Ash-Shifaa Hospital	2	25	No	No	1	20
5	Al-Mashhadani Hospital	2	20	No	No	1	17
6	The Maternity and Pediatrics Hospital	2	20	No	No	1	20
7	Ar-Risalah Hospital	2	21	Yes	No	2	36
8	The Kurdish Red Crescent Dispensary	-	-	-	-	1	17
9	Saif Al-Dawla Dispensary	-	-	-	-	1	18
10	Al-Sawsan Dispensary	-	-	-	-	1	17
11	Bahar Dispensary	-	-	-	-	1	17
12	Al-Mashlab Dispensary	-	-	-	-	1	17
13	Khatuniya Dispensary					1	17
Total		17	175	-	-	15	266

4. Number of Beneficiaries of Medical Services in Ar-Raqqa City

During June 2019, 11,580 patients were admitted to Ar-Raqqa city hospitals and dispensaries and 1,460 surgeries were conducted. The publicly-owned National and Maternity and Pediatrics hospitals and all of the city's dispensaries provided free services, yet the dispensaries' services were limited to medical examinations and dispensation of some medications only. On the other hand, the Modern Medicine, Al-Furat, Dar Ash-Shifaa, Al-Mashhadani and Ar-Risalah hospitals provided remunerated services.

Table 5 Number of Beneficiaries of Medical Centers in Ar-Raqqa City

#	Name of Hospital/Dispensary	# of Patients during a One-month Period	# of Operations during a One-month Period	Cases of Free Service
1	Modern Medicine Hospital	1,500	400	All cases are paid for by patients
2	Al-Furat Hospital	1,200	300	All cases are paid for by patients
3	The National Hospital	2,200	50	All cases are free of charge
4	Dar Ash-Shifaa Hospital	700	150	All cases are paid for by patients
5	Al-Mashhadani Hospital	800	200	All cases are paid for by patients
6	The Maternity and Pediatrics Hospital	800	100	All cases are free of charge
7	Ar-Risalah Hospital	1,200	260	All cases are paid for by patients
8	The Kurdish Red Crescent Dispensary	1,000	-	All cases are free of charge
9	Saif Al-Dawla Dispensary	600		All cases are free of charge
10	Al-Sawsan Dispensary	80		All cases are free of charge
11	Bahar Dispensary	600		All cases are free of charge
12	Al-Mashlab Dispensary	700		All cases are free of charge
13	Khatuniya Dispensary	200		All cases are free of charge
	Total	11,580	1,460	-

5. The Needs of the Medical Centers in Ar-Raqqa City

The Modern Medicine Hospital needed a dialysis machine and a cardiac catheter, whereas Al-Furat, the National, Dar Ash-Shifaa, Al-Mashhadani and the Maternity and Pediatrics hospitals and all dispensaries in Ar-Raqqa city needed CT scan machines, with bacteriological analysis devices for the National Hospital and incubators for the Maternity and Pediatrics hospital. The dispensaries needed contracting medical cadres and securing medications.

Table 6 The Needs of the Medical Centers in Ar-Raqqa City

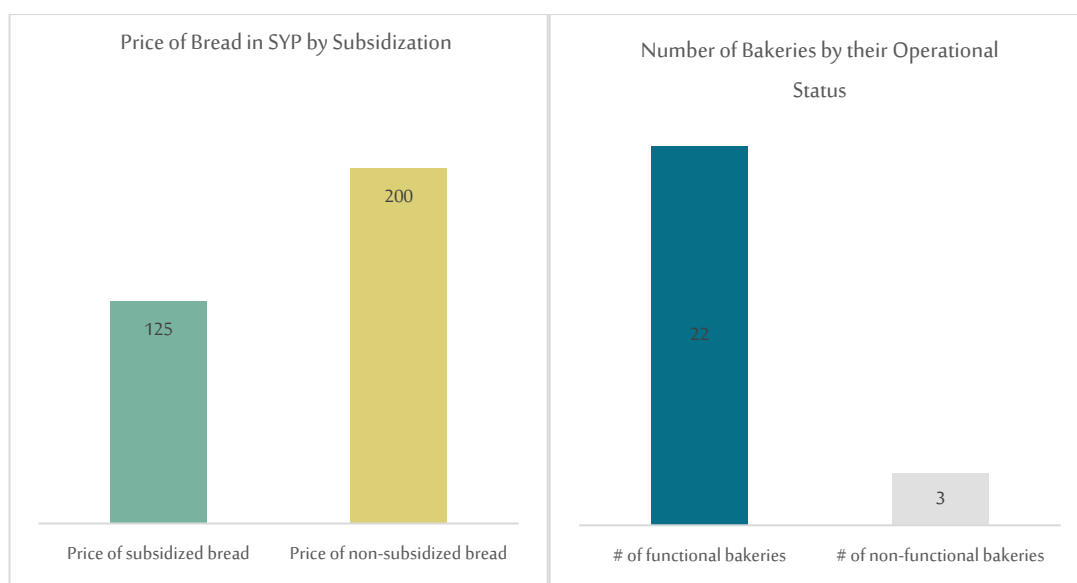
#	Name of Hospital/Dispensary	Needs
1	Modern Medicine Hospital	Dialysis machine – Cardiac catheter
2	Al-Furat Hospital	CT scan machine
3	The National Hospital	CT scan machine - Bacteriological analysis devices to analyze bacteria in the uterine
4	Dar Ash-Shifaa Hospital	CT scan machine – Intensive care equipment
5	Al-Mashhadani Hospital	CT scan machine
6	The Maternity and Pediatrics Hospital	CT scan machine – Newborns’ incubators – Children’s medications
7	Ar-Risalah Hospital	Surgical kits and medications
8	The Kurdish Red Crescent Dispensary	CT scan machine – Medical cadres – Ultrasound device - First aid medications
9	Saif Al-Dawla Dispensary	CT scan machine – Medical cadres
10	Al-Sawsan Dispensary	CT scan machine – Medical cadres – First aid medications
11	Bahar Dispensary	CT scan machine – Medical cadres – First aid medications
12	Al-Mashlab Dispensary	First aid medications
13	Khatuniya Dispensary	First aid medications – Medical cadres – Laboratory

Fourth: Bakeries in Ar-Raqqa City

1. Number of Bakeries and Price of Bread in Ar-Raqqa City

Ar-Raqqa city had 25 privately-owned bakeries; 22 of which were functional and three were non-functional. The International Coalition’s shelling destroyed Tibah and Saif Aldawla Ath-Thani bakeries fully and they are still destroyed and non-functional. Al-Falloujah bakery stopped working as its owner travelled outside Syria and the bakery had been closed ever since. Five of the functional bakeries (Mar’ee, Ad-Dalloum, Al-Jazarah and Khairat Ash-Sham bakeries) produce Siyahi/non-subsidized bread, which is made from a mix of durum and soft wheat flour, while adding a higher percentage of the latter; “bread produced from this flour is whiter, and it is known as 00 white flour”. Al-Siyahi bread is less satiating and more expensive when compared to subsidized bread. The cost of Siyahi bread “non-subsidized bread” was 200 SYP (an equivalent to USD 0.33) per 1 kg. 18 bakeries of functional ones produce subsidized bread, which cost 125 SYP (an equivalent to USD 0.2) per 1 kg (an equivalent to 8 loaves). 23 Shubat and Al-Onaizan bakeries were supervised by the PKK’s Committee of Bakeries and distribute bread through the neighborhoods’ representatives (or what is known as communes) for 125 SYP per 1 kg; however, their bread is of bad quality, as reported by the information sources.

Figure 7 Number of Bakeries and Price of Bread in Ar-Raqqa City



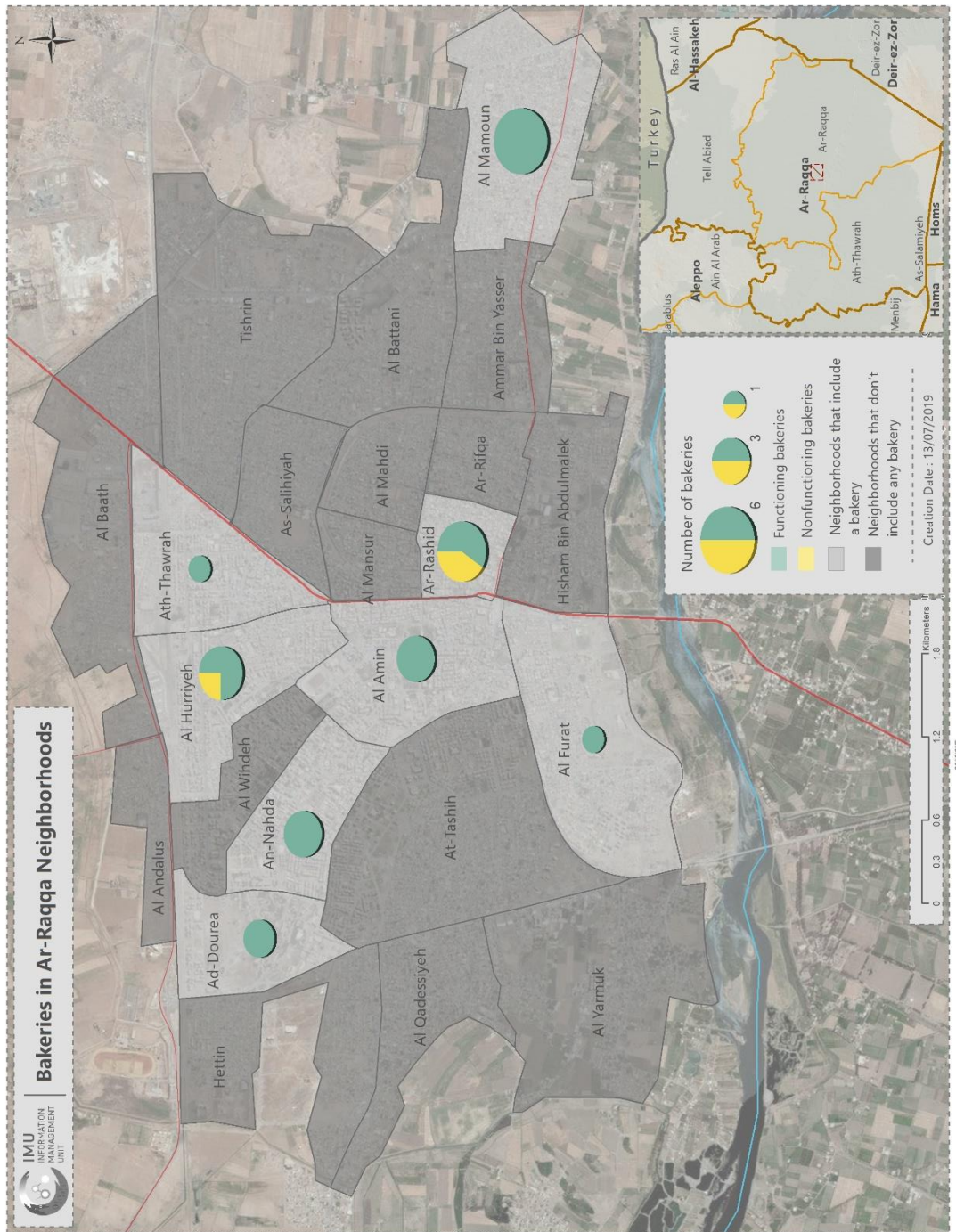
2. Entities Supervising the Bakeries and their Cadres in Ar-Raqqa City

All private bakeries in Ar-Raqqa city were supervised by their owners, whereas the public 23 Shubat bakery and Al-Onaizan bakery were supervised by the PKK’s Committee of Mills. 18 bakeries were supported with fuel and flour at reduced prices in return of producing the quantity of flour received from the Committee of Bakeries and selling it at a reduced price (125 SYP per 8 loaves). Four bakeries (Mar’ee, Ad-Dalloum, Al-Jazarah and Khairat Ash-Sham bakeries) were not receiving any support, rather purchasing flour and fuel from the market and selling the bread at the market price.

Table 7 Bakeries in Ar-Raqqa City and Entities Supervising them

#	Name of Bakery	Location/Neighborhood	Owner/Supervising Entity	Subsidizing Entity	Type of Subsidization	# of Administrators	# of Technicians	# of Workers
1	Mar'ee	Al Furat	Private owner	-	-	2	2	4
2	Ad-Dali	Al Amin	Private owner	Committee of Bakeries	Fuel - Flour	2	2	9
3	Al-Sharq Al-Awsat	Al Amin	Private owner	Committee of Bakeries	Fuel - Flour	3	3	9
4	Saif Aldawla	Ar-Rashid	Private owner	Committee of Bakeries	Fuel - Flour	1	1	3
5	Al Hassun	Ar-Rashid	Private owner	Committee of Bakeries	Fuel - Flour	2	2	6
6	23 Shubat	Al Amin	Public – Committee of Bakeries	Committee of Bakeries	Fuel - Flour	2	2	7
7	Elamir	An-Nahda	Private owner	Committee of Bakeries	Fuel - Flour	1	2	3
8	Al-Khattab	Al Hurriyeh	Private owner	Committee of Bakeries	Fuel - Flour	1	2	3
9	Al-Onaizan	Al Hurriyeh	Private owner	Committee of Bakeries	Fuel - Flour	1	2	4
10	Al-'Askari	Ath-Thawrah	Private owner	Committee of Bakeries	Fuel - Flour	2	2	4
11	Khairat Ash-Sham	An-Nahda	Private owner	-	-	1	2	4
12	Al-Najras	An-Nahda	Private owner	Committee of Bakeries	Fuel - Flour	1	2	3
13	Al-Jassim	Al Hurriyeh	Private owner	Committee of Bakeries	Fuel - Flour	1	1	3
14	Abu George	Ar-Rashid	Private owner	Committee of Bakeries	Fuel - Flour	1	1	3
15	Kajwan	Al Mamoun	Private owner	Committee of Bakeries	Fuel - Flour	1	2	4
16	Nweiran	Al Mamoun	Private owner	Committee of Bakeries	Fuel - Flour	1	1	3
17	Qais	Al Mamoun	Private owner	Committee of Bakeries	Fuel - Flour	1	2	3
18	Baghdad	Al Mamoun	Private owner	Committee of Bakeries	Fuel - Flour	1	1	3
19	Al-'Asaad	Al Mamoun	Private owner	Committee of Bakeries	Fuel - Flour	1	1	3
20	Ad-Dalloum	Al Mamoun	Private owner	-	-	1	1	4
21	Al Rayyan	Ad-Dourea	Private owner	Committee of Bakeries	Fuel - Flour	1	1	3
22	Al-Jazarah	Ad-Dourea	Private owner	-	-	1	1	5
23	Tibah	Al Hurriyeh	Non-functional	Destroyed	Shelling by the Coalition			
24	Al-Falloujah	Ar-Rashid	Non-functional	Not destroyed	The owner travelled			
25	Saif Aldawla Ath-Thani	Ar-Rashid	Non-functional	Destroyed	Shelling by the Coalition			
Total						29	36	93

Map 4 Number of Functional Bakeries in Ar-Raqqa City by Neighborhoods



3. The Bakery’s Production Capacity and the Bread’s Production Cost in Ar-Raqqa City

The actual productive capacity of bakeries in Ar-Raqqa city ranged between 3-10 tons per shift. The cost of producing 1 ton of bread (without the flour’s cost) in subsidized bakeries was 27,000 SYP (an equivalent to USD 45), whereas the cost of producing 1 ton of bread (without the flour’s cost) in non-subsidized bakeries was 47,000 SYP (an equivalent to USD 78).

Table 8 The Bakeries' Production Capacity and the Bread's Production Cost in Ar-Raqqa City

#	Name of Bakery	Actual Productive Capacity of the Bakery/ton	Current Quantity of Production	# of Production Lines in the Bakery	Cost of Producing 1 ton of Bread/USD	Where does the Bakery get its Operational Expenses from?	Where does the Bakery get its Flour from?	Beneficiaries of Bread	Maintenance Work
1	Mar'ee	4	1.5	1	47,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
2	Ad-Dali	7	7	5	26,500	From selling bread	Committee of Mills	Residents of the city and Kisret Elsheikh Jomaa, Hmeirat, Rabee'a and Assadiya villages	Periodic maintenance
3	Al-Sharq Al-Awsat	6	5	3	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
4	Saif Aldawla	5	1.5	2	26,500	From selling bread	Committee of Mills	Residents of the city	Dough kneading machine – Electricity convertor
5	Al Hassun	12	8	4	26,500	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
6	23 Shubat	10	7	5	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
7	Elamir	3	1.5	1	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
8	Al-Khattab	3	1.5	1	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
9	Al-Onaizan	5	1.5	2	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
10	Al-'Askari	6	3	2	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
11	Khairat Ash-Sham	5	1.5	2	46,500	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
12	Al-Najras	3	1.5	2	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
13	Al-Jassim	5	1.5	3	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
14	Abu George	3	1.5	2	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
15	Kajwan	6	1.5	3	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
16	Nweiran	4	1.5	2	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
17	Qais	6	1.5	3	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
18	Baghdad	3	1.5	1	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
19	Al-'Asaad	4	1.5	2	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
20	Ad-Dalloum	6	1.5	3	47,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
21	Al Rayyan	6	1.5	3	27,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance

22	Al-Jazarah	6	3	3	47,000	From selling bread	Committee of Mills	Residents of the city	Periodic maintenance
Total		118	57	55					

The actual productive capacity of a bakery means the quantity of bread produced per shift. The bakery's capacity varies by its size and equipment and depends on multiple standards and most importantly the number of production lines. The more the production lines, the higher the bakery's capacity. Similarly, the larger the fermentation conveyor belts and the oven, the higher the bakery's capacity.

The actual productive capacity of 23 Shubat bakery was 10 tons of bread per shift; this bakery was publicly-owned, had four production lines and produced 5 tons of bread daily at the time of preparing this report. The actual productive capacity of Al Hassun bakery was 12 tons of bread per shift; this bakery had four production lines and produced 8 tons of bread daily at the time of preparing this report.

The cost of producing 1 ton of bread (without the flour's cost) was 27,000 SYP (an equivalent to USD 45) in bakeries subsidized with needed flour and fuel at a reduced price; the cost of fuel distributed by the Committee of Bakeries was 75,000 SYP per 1 liter (an equivalent to USD 0.125) and the cost of flour distributed at a reduced price was 70,000 SYP (an equivalent to USD 117), whereas the other expenses (yeast, salt, water, wages of workers and maintenance expenses) were secured from selling bread.

The cost of producing 1 ton of bread (without the flour's cost) was 47,000 SYP (an equivalent to USD 78) in non-subsidized bakeries (producing Siyahi bread) which get the needed flour and fuel from the market.

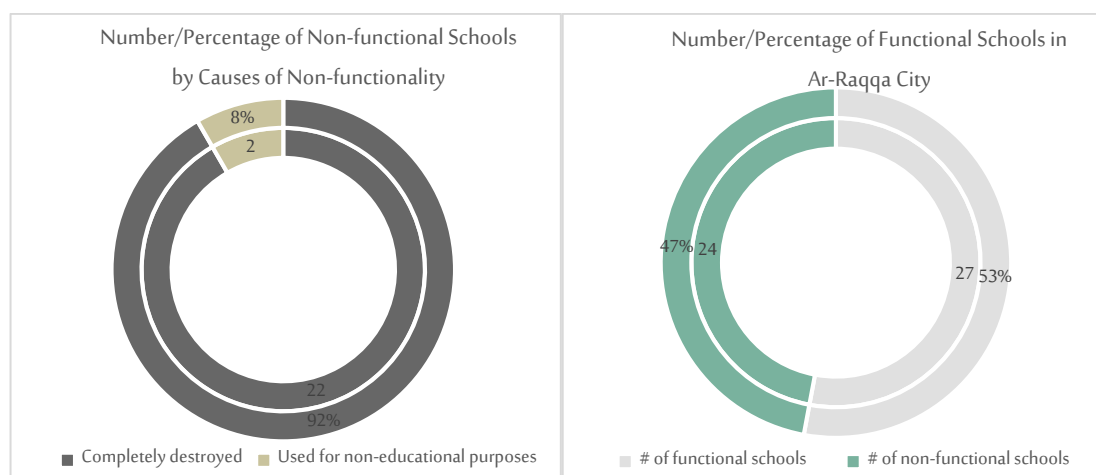
According to the MPI¹ (Market Price Index) issued by the IMU, the market price of fuel in Ar-Raqqa governorate ranged between 175-387 SYP (an equivalent to USD 0.29-0.77) per 1 liter, and the market price of flour was 265 SYP (an equivalent to USD 0.44) per 1 kg. Information sources confirmed that 1 ton of flour cost between USD 345-400 in the market, while the other expenses were secured from selling bread.

Fifth: Schools in Ar-Raqqa City

1. Information on Schools in Ar-Raqqa City

Ar-Raqqa city had 51 schools; 24 non-functional and 27 functional schools. All functional schools in the city were gender-mixed teaching both female and male students. 22 of the non-functional schools stopped working because their buildings were destroyed, one school stopped working because it was used by a civil entity and one school stopped working because it was used by the PKK forces which were controlling the city.

Figure 8 Numbers of Schools in Ar-Raqqa City and Causes of their Non-functionality



There were no schools within five neighborhoods (Al Baath, Al Mahdi, Ar-Rifqa, Ammar Bin Yasser and Al Yarmuk) in Ar-Raqqa city. There were no functional schools within five other neighborhoods (As-Salihiyah, Al Mansur, Ar-Rashid, Hisham Bin Abdulmalek and Hettin) in the city. The total accommodation capacities of functional schools were 24,448 students only, whereas statistics conducted by the IMU’s enumerators indicated that there were 72,500 school-aged children in the city. It was reported that there was only one upper-secondary school, 22 schools had one shift only and five schools had two shifts (a morning shift from 08:00 to 11:30 and an evening shift from 12:00 pm to 16:00).

Table 9 General Information on Schools in Ar-Raqqa City

#	Name of School	Neighborhood	Operational Status	Condition of School Building	Accommodation Capacity (per Shift)	Gender-mixed?	# of Shifts	Educational Stages Taught
1	Bassam Ziwar	Al Qadessiyeh	Functional	Partially destroyed	400	Gender-mixed	One shift	1-9
2	Al-Buhturi	Tishrin	Functional	Not destroyed	850	Gender-mixed	One shift	1-9
3	Al Amin	Al Hurriyeh	Functional	Partially destroyed	750	Gender-mixed	Two shifts	1-9
4	Ibrahim Hanano	Al Furat	Functional	Partially destroyed	900	Gender-mixed	Two shifts	1-9
5	Al Mamou n	Ad-Dourea	Functional	Not destroyed	998	Gender-mixed	One shift	1-6
6	Al-Zahraa	Al Amin	Functional	Partially destroyed	700	Gender-mixed	One shift	1-6

7	Jawad Anzour	An-Nahda	Functional	Not destroyed	1000	Gender-mixed	One shift	1-6
8	Abi Tammam	Al Wihdeh	Functional	Partially destroyed	600	Gender-mixed	One shift	1-9
9	Omar ibn Abdulaziz	Ad-Dourea	Functional	Not destroyed	900	Gender-mixed	One shift	1-9
10	Jenin	Ath-Thawrah	Functional	Partially destroyed	500	Gender-mixed	One shift	1-9
11	Al-Khawarizmi	Tishrin	Functional	Partially destroyed	1500	Gender-mixed	One shift	1-9
12	Al Andalus	Al Andalus	Functional	Not destroyed	1000	Gender-mixed	One shift	1-9
13	Al-Farabi	Al Hurriyeh	Functional	Partially destroyed	700	Gender-mixed	One shift	1-6
14	Abu Bakr Ar-Razi	Ad-Dourea	Functional	Partially destroyed	1400	Gender-mixed	One shift	1-12
15	Abu Ja'far Al-Mansur	Al Andalus	Functional	Partially destroyed	800	Gender-mixed	One shift	1-8
16	Al-Farouq	Ath-Thawrah	Functional	Partially destroyed	1400	Gender-mixed	Two shifts	1-8
17	Al-Intifada	Al Mamoun	Functional	Partially destroyed	850	Gender-mixed	One shift	1-6
18	Sati' Al-Husari	Al Mamoun	Functional	Not destroyed	1200	Gender-mixed	One shift	1-6
19	Uqba ibn Nafi'	At-Tashih	Functional	Not destroyed	500	Gender-mixed	One shift	1-6
20	Adnan Al-Malki	Ath-Thawrah	Functional	Partially destroyed	400	Gender-mixed	Two shifts	1-6
21	Tareq ibn Ziad	Al Furat	Functional	Not destroyed	900	Gender-mixed	One shift	1-10
22	Ibn Al-Bitar	Al Mamoun	Functional	Not destroyed	1000	Gender-mixed	One shift	1-9
23	Al-Battani	Al Battani	Functional	Partially destroyed	400	Gender-mixed	Two shifts	1-6
24	Houari Boumediene	Al Wihdeh	Functional	Not destroyed	1500	Gender-mixed	One shift	1-9
25	Ali ibn Abi Taleb	Al Wihdeh	Functional	Not destroyed	1300	Gender-mixed	One shift	1-6
26	Al-Wihdah Al-Arabia	Al Mamoun	Functional	Not destroyed	1200	Gender-mixed	One shift	1-10
27	Ubay ibn Ka'b	Al Mamoun	Functional	Not destroyed	800	Gender-mixed	One shift	1-9
28	Ash-Shareeah	Al Hurriyeh	Non-functional	Partially destroyed				

29	Al-Itihad Al-Arabi	Ad-Dourea	Non-functional	Completely destroyed
30	Abu Firas Al- Hamdan i	Ad-Dourea	Non-functional	Completely destroyed
31	Usama ibn Al- Munqid h	Ad-Dourea	Non-functional	Completely destroyed
32	At- Tijarah	Ad-Dourea	Non-functional	Completely destroyed
33	Ar- Rashid Upper Seconda ry School	Al Amin	Non-functional	Completely destroyed
34	Al- Ghafiqi	Al Wihdeh	Non-functional	Completely destroyed
35	Al- Mutafa wwiqun	Al Amin	Non-functional	Completely destroyed
36	Al- Ma'arri	Al Hurriyeh	Non-functional	Completely destroyed
37	Al-Walid ibn Abdulma lek	Al Mamoun	Non-functional	Completely destroyed
38	Sultan Pasha Al- Atrash	Ad-Dourea	Non-functional	Completely destroyed
39	Aisha	Al Amin	Non-functional	Completely destroyed
40	Munir Habib	As-Salihyah	Non-functional	Completely destroyed
41	Ammar ibn Yasir	Hisham Bin Abdulmalek	Non-functional	Used by a civil entity
42	Omar ibn Al- Khattab	Ath-Thawrah	Non-functional	Completely destroyed
43	Ar- Rashid	Ar-Rashid	Non-functional	Completely destroyed
44	Al-Farea Al- Shaibani yah	Al Qadessiyeh	Non-functional	Completely destroyed
45	Sakinah	Hisham Bin Abdulmalek	Non-functional	Completely destroyed
46	Musa ibn Nusayr	Ad-Dourea	Non-functional	Completely destroyed

47	Ibn Khaldun	An-Nahda	Non-functional	Used by the PKK
48	Balqis	Al Mansur	Non-functional	Completely destroyed
49	Hettin	Hettin	Non-functional	Completely destroyed
50	Khadijah Al-Kubra	Ad-Dourea	Non-functional	Completely destroyed
51	Salahudin	As-Salihyah	Non-functional	Completely destroyed

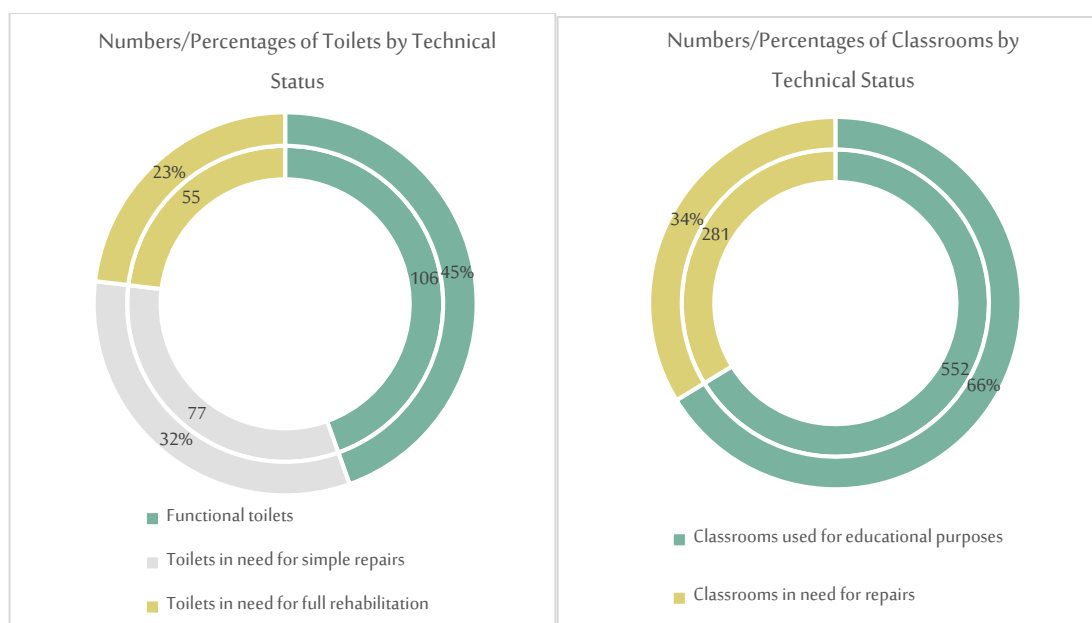
2. The Status of Schools in Ar-Raqqa City

66% (552 classrooms) of total rooms in functional schools in Ar-Raqqa city were used for educational purposes, whereas 34% (281 classrooms) needed repairs.

45% (106 toilets) of total toilets in functional schools in the city were functional, 32% (77 toilets) needed simple repairs to become usable, whereas 23% (55 toilets) needed full rehabilitation.

It was reported that the majority of the 24 non-functional schools in the city were completely destroyed and needed to be rebuilt due to the huge percentages of irreparable destructions.

Figure 9 Technical Status of Classrooms and Toilets in Ar-Raqqa City



219 windows in the city's functional schools needed repairs and 598 windows were irreparable and needed replacement, whereas 84 doors needed repairs and 275 doors were irreparable and needed replacement; those numbers include all windows and doors in functional schools.

Additionally, 1,495 student desks needed repairs and 810 desks were irreparable and needed replacement.

Table 10 Information on the Technical Status of School Facilities in Ar-Raqqa City

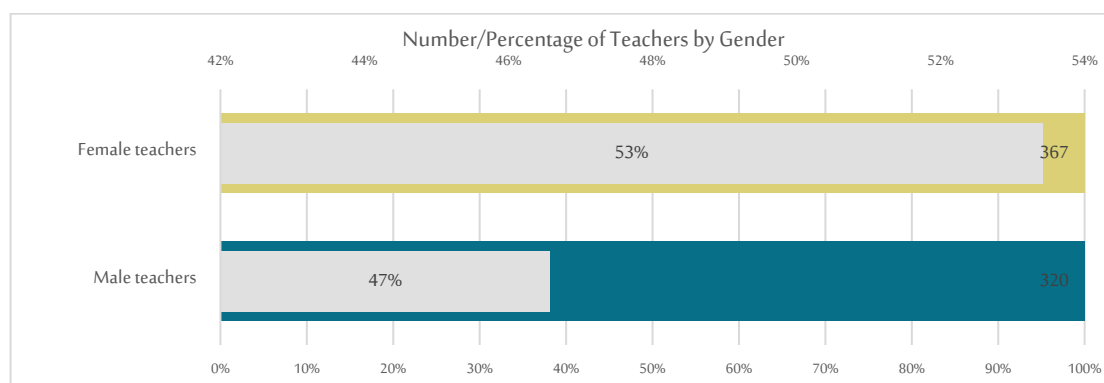
#	Name of School	# of Classrooms Used for Educational Purposes	# of Rooms in Need for Repairs	# of Windows in Need for Replacement	# of Windows in Need for Repairs	# of Doors in Need for Repairs	# of Doors in Need for Replacement	# of Functional Toilets	# of Toilets in Need for Simple Repairs	# of Toilets in Need for Full Rehabilitation	# of Desks in Need for Repairs	# of Desks in Need for Replacement
1	Bassam Ziwar	14	0	0	0	0	0	4	0	0	0	60
2	Al-Buhturi	31	0	0	0	0	0	5	10	0	25	0
3	Al Amin	24	1	0	0	3	0	0	12	0	0	0
4	Ibrahim Hanano	7	28	25	0	0	28	0	0	5	0	0
5	Al Mamoun	28	0	0	0	0	0	5	3	0	50	50
6	Al-Zahraa	10	12	20	0	0	12	3	2	6	100	0
7	Jawad Anzour	18	4	20	20	5	2	2	4	0	120	0
8	Abi Tammam	24	16	30	20	5	20	3	2	0	0	100
9	Omar ibn Abdulaziz	27	1	21	9	0	0	5	3	0	0	0
10	Jenin	14	12	50	0	4	12	0	0	6	50	0
11	Al-Khwarizmi	15	7	50	0	0	16	0	0	6	300	0
12	Al Andalus	24	0	0	0	0	0	6	0	0	0	0
13	Al-Farabi	0	36	50	10	4	12	0	0	6	0	70
14	Abu Bakr Ar-Razi	10	18	15	15	0	13	12	0	10	100	0
15	Abu Ja'far Al-Mansur	22	28	30	20	10	25	0	6	0	200	0
16	Al-Farouq	26	6	15	0	6	0	6	0	0	0	0
17	Al-Intifada	24	6	25	15	5	10	0	0	6	200	0
18	Sati' Al-Husari	28	2	5	10	5	0	7	1	0	10	10
19	Uqba ibn Nafi'	16	32	70	0	0	48	0	0	6	100	250
20	Adnan Al-Malki	9	11	30	15	5	15	2	1	1	10	10
21	Tareq ibn Ziad	33	2	5	15	8	2	5	3	0	20	30
22	Ibn Al-Bitar	0	31	65	0	0	31	6	16	0	100	160
23	Al-Battani	10	20	50	5	5	23	1	1	2	20	10
24	Houari Boumedienne	42	0	5	25	8	2	8	2	0	10	40
25	Ali ibn Abi Taleb	36	2	0	10	3	0	7	3	0	20	10
26	Al-Wihdah Al-Arabia	35	3	5	20	5	3	15	5	0	50	0

27	Ubay ibn Ka'b	25	3	3	10	3	1	4	3	1	10	10
Total		552	281	589	219	84	275	106	77	55	1,495	810

3. Teaching Cadres in Ar-Raqqa City

The schools in Ar-Raqqa city included 687 teachers; 53% (367 teachers) of which were males and 47% (320 teachers) were females. The city's schools had 221 irregular teachers who practiced this profession due to a lack in teaching cadres. Further, 47 teachers were not remunerated by any entity, whereas 640 teachers were regularly remunerated.

Figure 10 Number/Percentage of Teachers by Gender in Ar-Raqqa City



Regular teachers are those who have already been in the teaching profession before the ongoing crisis, as assigned by the Syrian Directorate of Education under permanent contracts. After graduating from college or intermediate institute, they undergo a recruitment competition held by the Ministry of Education, and those who pass the competition sign permanent job contracts with the Ministry and are assigned as per their various specialisations.

The results showed that 68% (466 teachers) of teachers in Ar-Raqqa city were regular, whereas 32% (221 teachers) were irregular teachers practicing the profession due to a lack in educational cadres.

The regime stopped paying the wages of most teachers in Ar-Raqqa city or the city's teachers were forced to go to the regime-held areas to receive their salaries which might expose them to a risk of detention. The teacher's average wage was 49,500 SYP monthly (an equivalent to USD 83). 47 teachers were not remunerated by any entity.

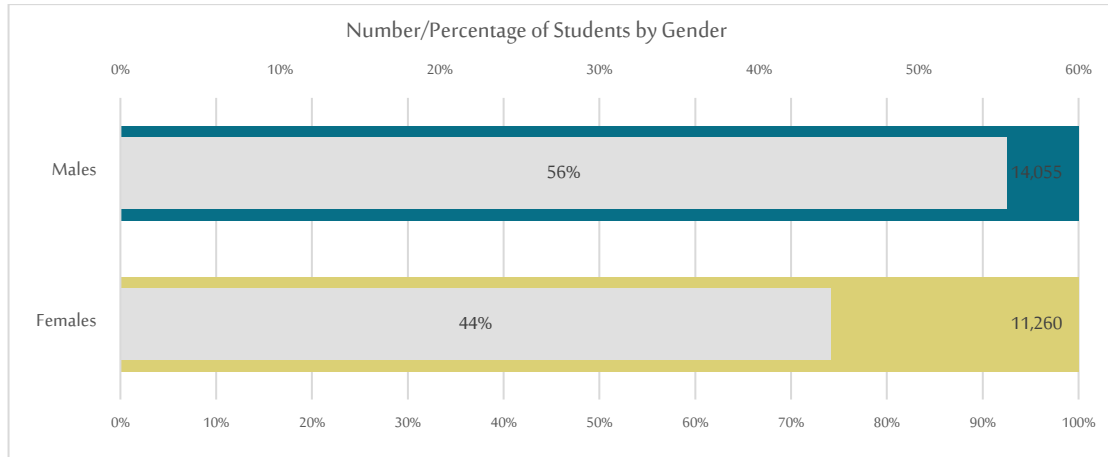
Table 11 Teaching Cadres in Ar-Raqqa City

#	Name of School	# of Male Teachers (teaching is their profession)	# of Female Teachers (teaching is their profession)	# of Irregular Teachers	Total Remunerated Teachers (males & females)	Average Salary
1	Bassam Ziwar	8	8	0	16	49,500
2	Al-Buhturi	9	21	0	30	49,500
3	Al Amin	8	8	0	16	49,500
4	Ibrahim Hanano	9	5	0	14	49,500
5	Al Mamoun	6	10	0	16	49,500
6	Al-Zahraa	8	4	0	12	49,500
7	Jawad Anzour	2	2	14	18	49,500
8	Abi Tammam	2	2	10	14	49,500
9	Omar ibn Abdulaziz	6	4	5	15	49,500
10	Jenin			14	1	49,500
11	Al-Khawarizmi			20	1	49,500
12	Al Andalus	2	2	11	15	49,500
13	Al-Farabi	2	0	13	15	49,500
14	Abu Bakr Ar-Razi			14	14	49,500
15	Abu Ja'far Al-Mansur			26	26	49,500
16	Al-Farouq	3	7	50	60	49,500
17	Al-Intifada	2	4	20	26	49,500
18	Sati' Al-Husari	15	20	0	35	50,000
19	Uqba ibn Nafi'			12	12	49,500
20	Adnan Al-Malki	8	6	0	12	50,000
21	Tareq ibn Ziad	25	20	0	42	50,000
22	Ibn Al-Bitar	0	3	12	15	49,500
23	Al-Battani	10	8	0	16	50,000
24	Houari Boumediene	33	30	0	60	50,000
25	Ali ibn Abi Taleb	27	23	0	48	50,000
26	Al-Wihdah Al-Arabia	28	26	0	51	60,000
27	Ubay ibn Ka'b	18	22	0	40	60,000
	Total	231	235	221	640	-

4. Students in Ar-Raqqa City

The schools in Ar-Raqqa city included 25,315 students; 56% (14,055 students) of which were males and 44% (11,260 students) were females.

Figure 11 Numbers of Students by Gender in Ar-Raqqa City



The demographic statistics, conducted by the IMU’s enumerators in the ACU, demonstrated that the number of school-aged children in Ar-Raqqa city was 72,500 children, whereas the number of students in the city’s schools was 25,315 students; which means that 65% of the city’s children were dropouts. According to those statistics, females formed 52% of the city’s total population, and only 44% of students enrolled in schools, which means that the percentage of female dropouts was higher than that of males.

Table 12 Information on Students by Gender in Ar-Raqqa City

#	Name of School	# of Female Students	# of Male Students
1	Bassam Ziwar	230	136
2	Al-Buhturi	300	600
3	Al Amin	250	500
4	Ibrahim Hanano	550	650
5	Al Mamoun	225	375
6	Al-Zahraa	175	175
7	Jawad Anzour	400	600
8	Abi Tammam	250	450
9	Omar ibn Abdulaziz	520	450
10	Jenin	300	200
11	Al-Khwarizmi	750	800
12	Al Andalus	300	450
13	Al-Farabi	350	400
14	Abu Bakr Ar-Razi	500	775
15	Abu Ja'far Al-Mansur	350	575
16	Al-Farouq	900	1,150
17	Al-Intifada	350	500
18	Sati' Al-Husari	385	465
19	Uqba ibn Nafi'	200	450
20	Adnan Al-Malki	175	200
21	Tareq ibn Ziad	615	615
22	Ibn Al-Bitar	445	599
23	Al-Battani	215	210
24	Houari Boumediene	850	850
25	Ali ibn Abi Taleb	450	450
26	Al-Wihdah Al-Arabia	775	880
27	Ubay ibn Ka'b	450	550
Total		11,260	14,055

Sixth: Water in Ar-Raqqa City

1. The Water Stations in Ar-Raqqa City

Ar-Raqqa city had three water stations. **1) Ar-Raqqa Main Water Station:** supplies the bulk of the city's neighborhoods, except for Al Mamoun, the Industrial Area and parts of the eastern neighborhoods, contains 21 water pumps, not connected to any water wells, fed with water from the Euphrates River, its daily productive capacity was 9,000 m³/daily before the ongoing crisis and 7,000 m³/daily currently, had 45 workers, powered with electricity from the public electricity grid, which is connected to the Euphrates Dam, and supported from the USAID-supported Furat Program, Syria Essential Services (SES), Solidarity and Concern. **2) Al-Maslakh Water Station:** supplies Al Mamoun neighborhood and the Industrial Area, contains four water pumps, its daily productive capacity was 4,750 m³/daily before the ongoing crisis and 1,000 m³/daily currently, had 20 workers,

powered with electricity from the public electricity grid, which is connected to the Euphrates Dam, and supported by Furat Program. **3) Bir Elhasham Water Station:** supplies parts of the city's eastern neighborhood, contains three water pumps, its daily productive capacity was 2,000 m³/daily before the ongoing crisis and 1,300 m³/daily currently, had four workers, powered with electricity from the public electricity grid, which is connected to the Euphrates Dam, and supported by Furat Program.

Over 70% of the housings had water meters (to calculate the water consumption) - most of which were non-functional -, while, on the other hand, 30% of the housings illegally withdrew water lines from the public water network. Water was supplied for free in Ar-Raqqa city, which also had irrigation canals from the Euphrates Dam Lake and no water wells, as the public network covered most of its neighborhoods.

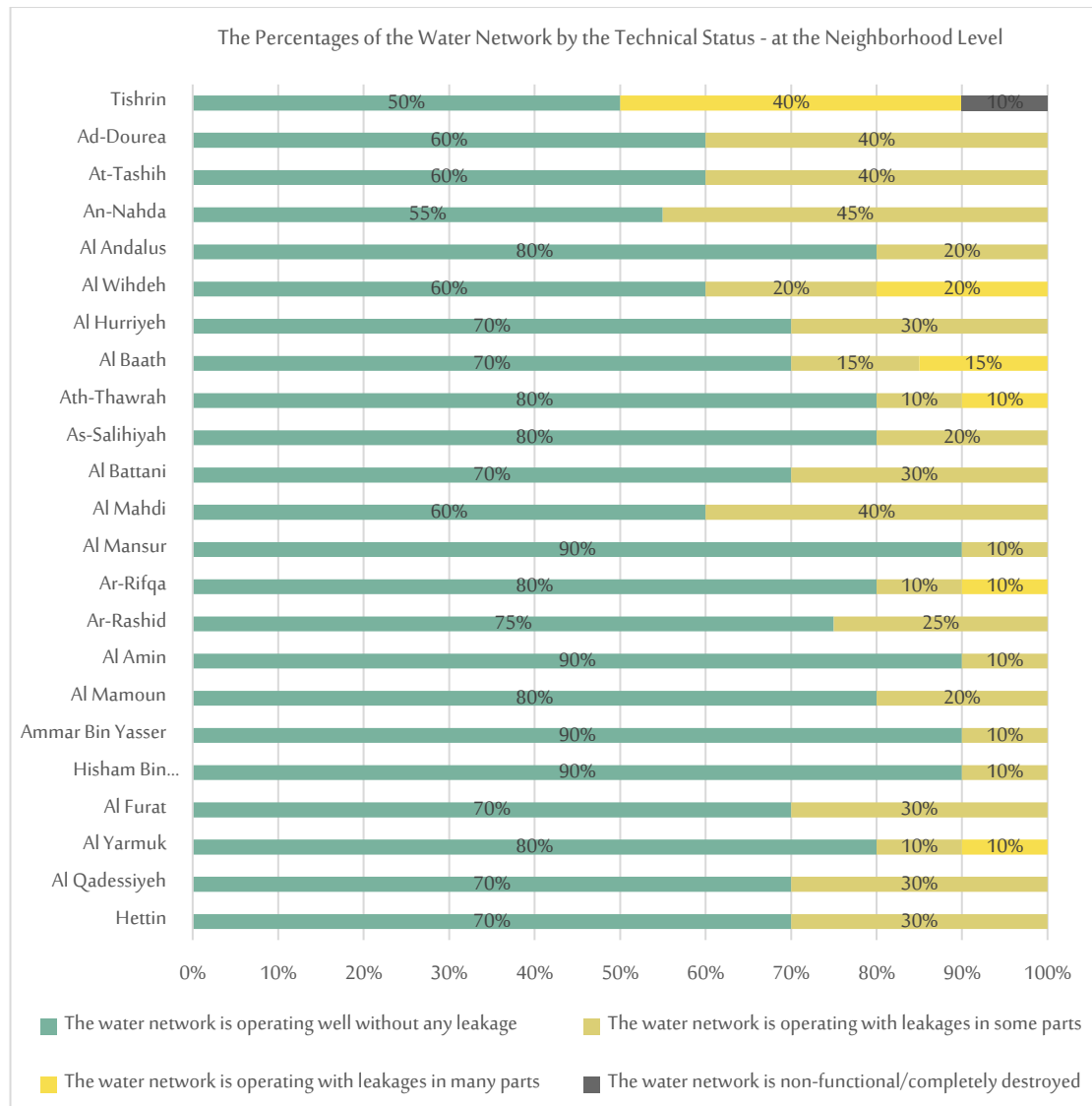
Table 13 Public Water Stations Supplying Ar-Raqqa City

Name of Water Station	Location of Water Station	The Entity Responsible for Managing the Station	Donating Entity	# of Pumping Engines	Source of Energy	Productive Capacity m ³ /day	Current Productive Capacity m ³ /day	# of Workers in the Station	Covered Neighborhoods
Ar-Raqqa Main Water Station	Ar-Raqqa city	MSD - PKK	Furat Program - SES - Solidarity Concern	21	Public electricity grid	9,000	7,000	45	The city's neighborhoods and nearby villages
Al-Maslakh Water Station	Ar-Raqqa city	MSD - PKK	Furat Program	4	Public electricity grid	4,750	1,000	20	Al Mamoun neighborhood and the Industrial area
Bir Elhasham Water Station	Ar-Raqqa city	MSD - PKK	Furat Program	3	Public electricity grid	2,000	1,300	4	The city's neighborhoods

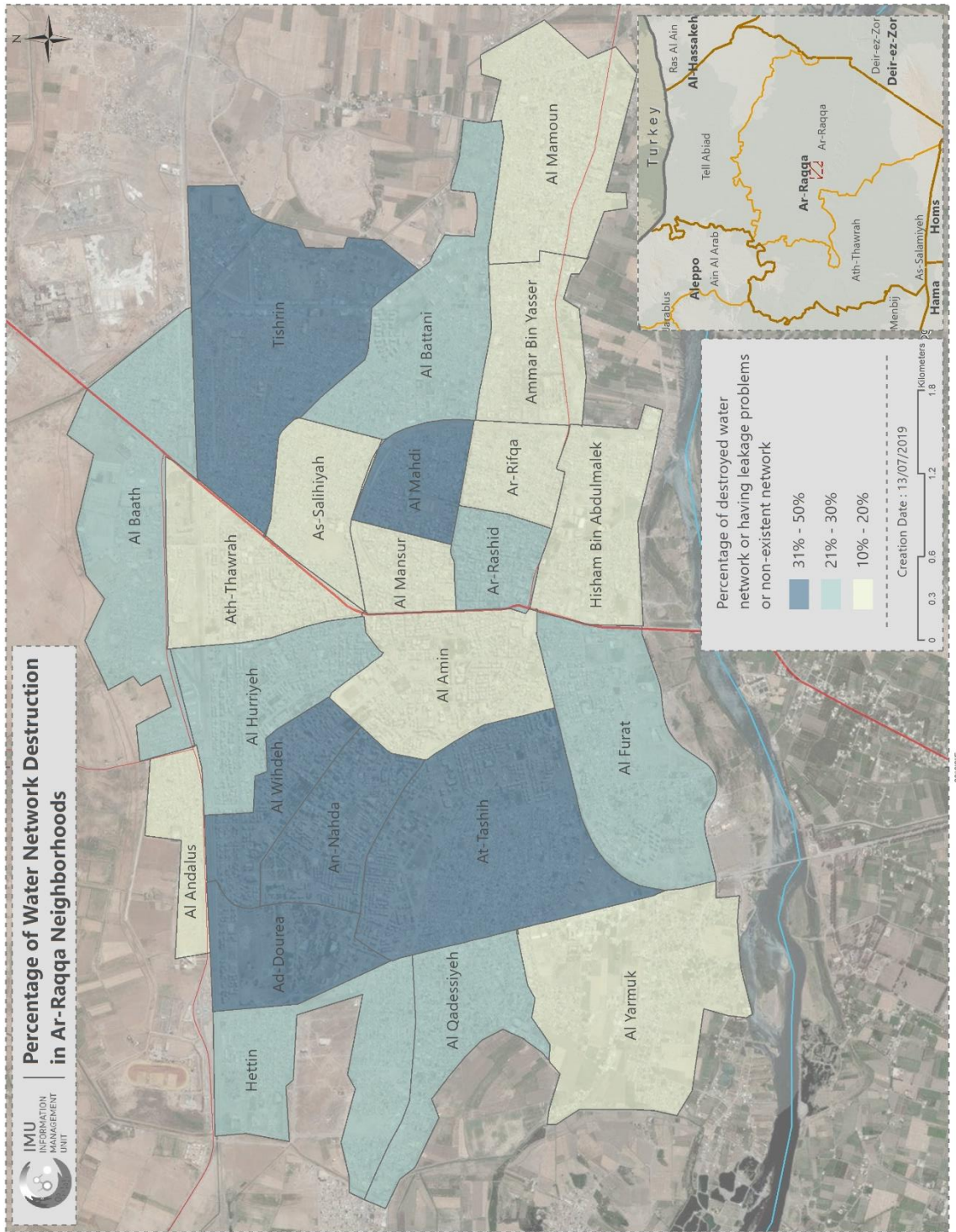
1. The Public Water Network in Ar-Raqqa City

The public water network was suffering from malfunctions, by no more than 50%, causing water leaks through the cracks in all of the neighborhoods in Ar-Raqqa city. The public network in Tishrin neighborhood contained the highest percentages of destruction - 10% was completely destroyed and not used and 40% was largely destroyed causing leakages of large quantities of water through the cracks -, covered ground floors only and did not reach any upper floors, which formed 50% of the neighborhood's housings. Additionally, the percentage of destruction was high in the public network within An-Nahda, Al Wihdeh, Al Baath, Ath-Thawrah, Al Mahdi, Ar-Rifqa and Al Yarmuk neighborhoods. The lowest percentages of destruction in the public network were found in Ammar Bin Yasser and Hisham Bin Abdulmalek neighborhoods. The water network in all of the city's neighborhoods suffered from water leaks in some parts and needed simple repairs. The Furat Program was repairing some worn-out parts periodically.

Figure 12 The Technical Status of the Water Network in Ar-Raqqa City at the Neighborhood Level



Map 6 Destruction in the Water Network in Ar-Raqqa City by Neighborhoods

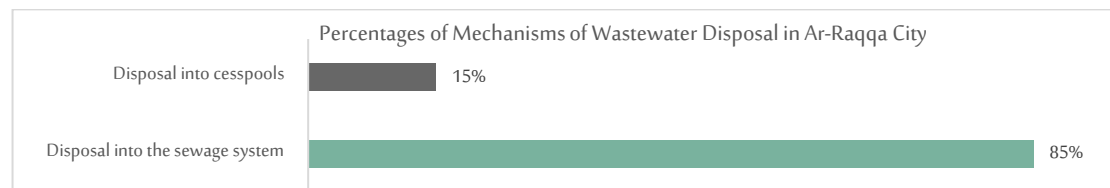


Seventh: The Sewage System in Ar-Raqqa City

1. Mechanisms of Wastewater Disposal in Ar-Raqqa City

15% of housings in Ar-Raqqa city disposed their wastewater into irregular cesspools. Those housings spread in Ad-Dourea, Al Hurriyeh, Al Baath, Ath-Thawrah, Al Battani and Al Yarmuk neighborhoods; which witnessed an urban expansion during the ongoing crisis, while no entity established any sewage systems for the new housings. It was mentioned that all cesspools were not covered with layers of sand or gravel to filter the wastewater and avoid groundwater contamination, hence the name “irregular cesspools”. On the other hand, 85% of the city’s housings disposed their wastewater into the public sewage system.

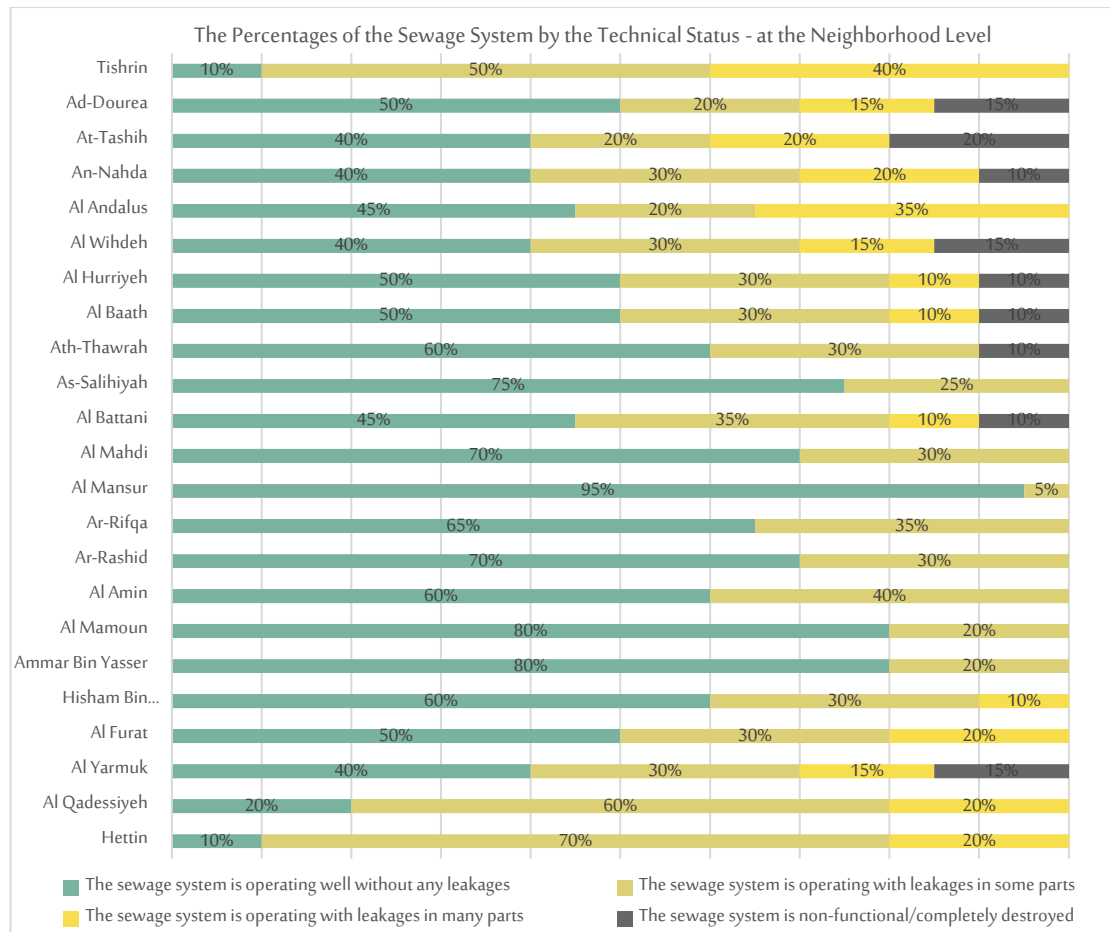
Figure 13 Mechanisms of Wastewater Disposal in Ar-Raqqa City



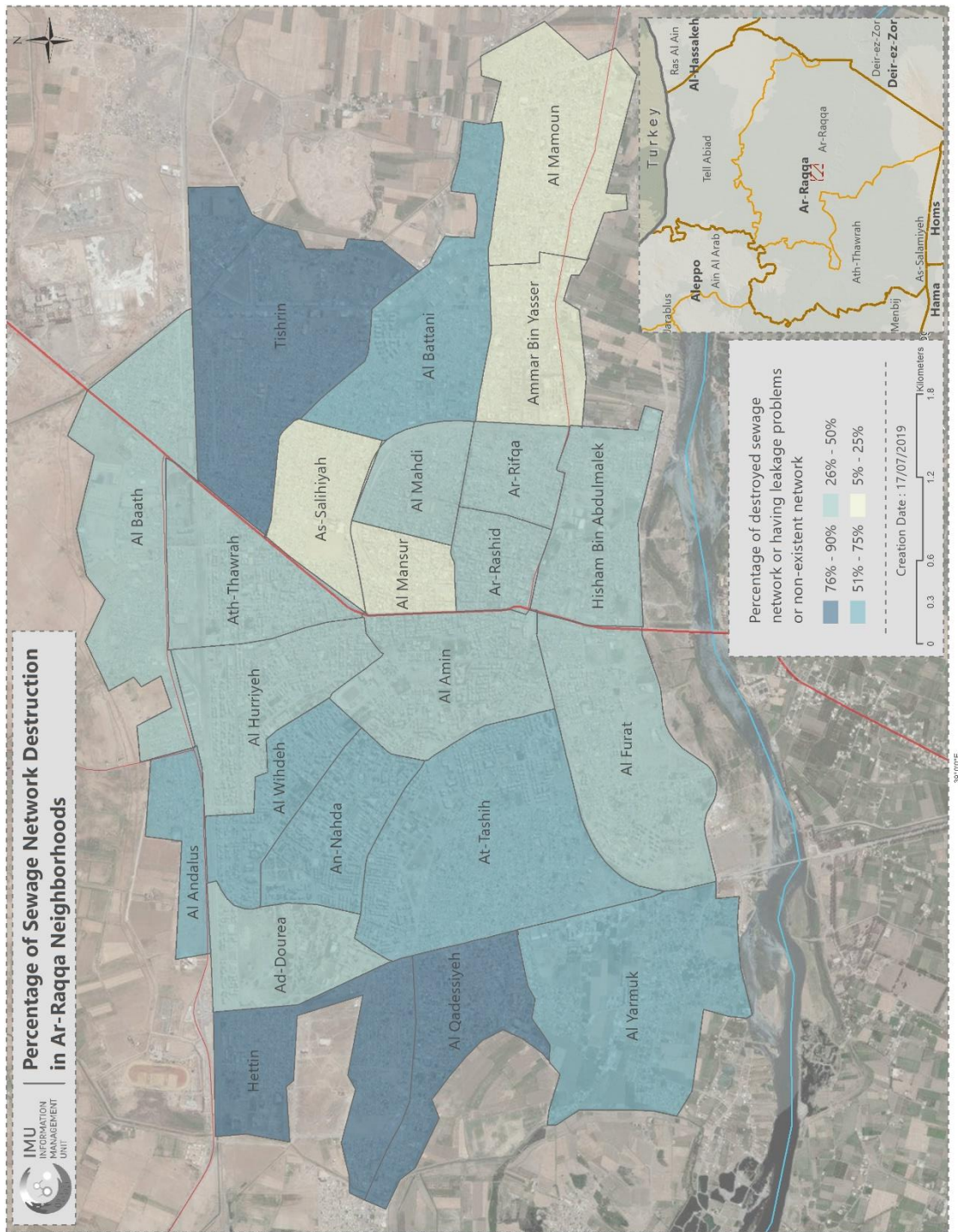
2. The Status of the Sewage System in Ar-Raqqa City

The results revealed very high percentages of leakage in the public sewage system in all neighborhoods in Ar-Raqqa city. The highest percentages of destruction in the sewage system were in Tishrin, Al Qadessiyeh and Hettin neighborhoods by over 80% of the sewage system. Some parts of the sewage system were completely destroyed and needed replacement in Ad-Dourea, At-Tashih, An-Nahda, Al Wihdeh, Al Hurriyeh, Al Baath, Ath-Thawrah, Al Battani and Al Yarmuk neighborhoods.

Figure 14 The Technical Status of the Sewage System in Ar-Raqqa City at the Neighborhood Level



Map 7 The Technical Status of the Sewage System in Ar-Raqqa City at the Neighborhood Level

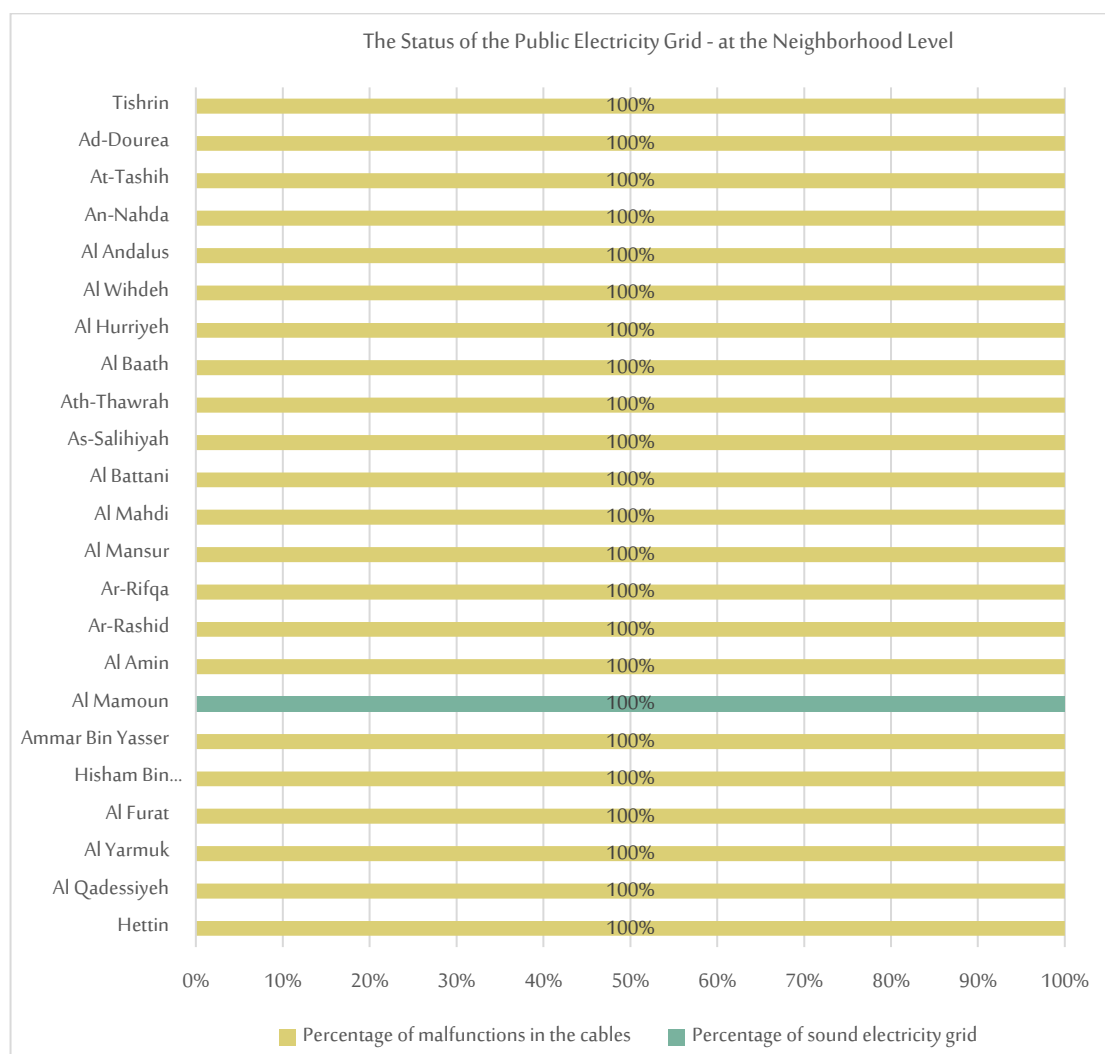


Eighth: Electricity in Ar-Raqqa City

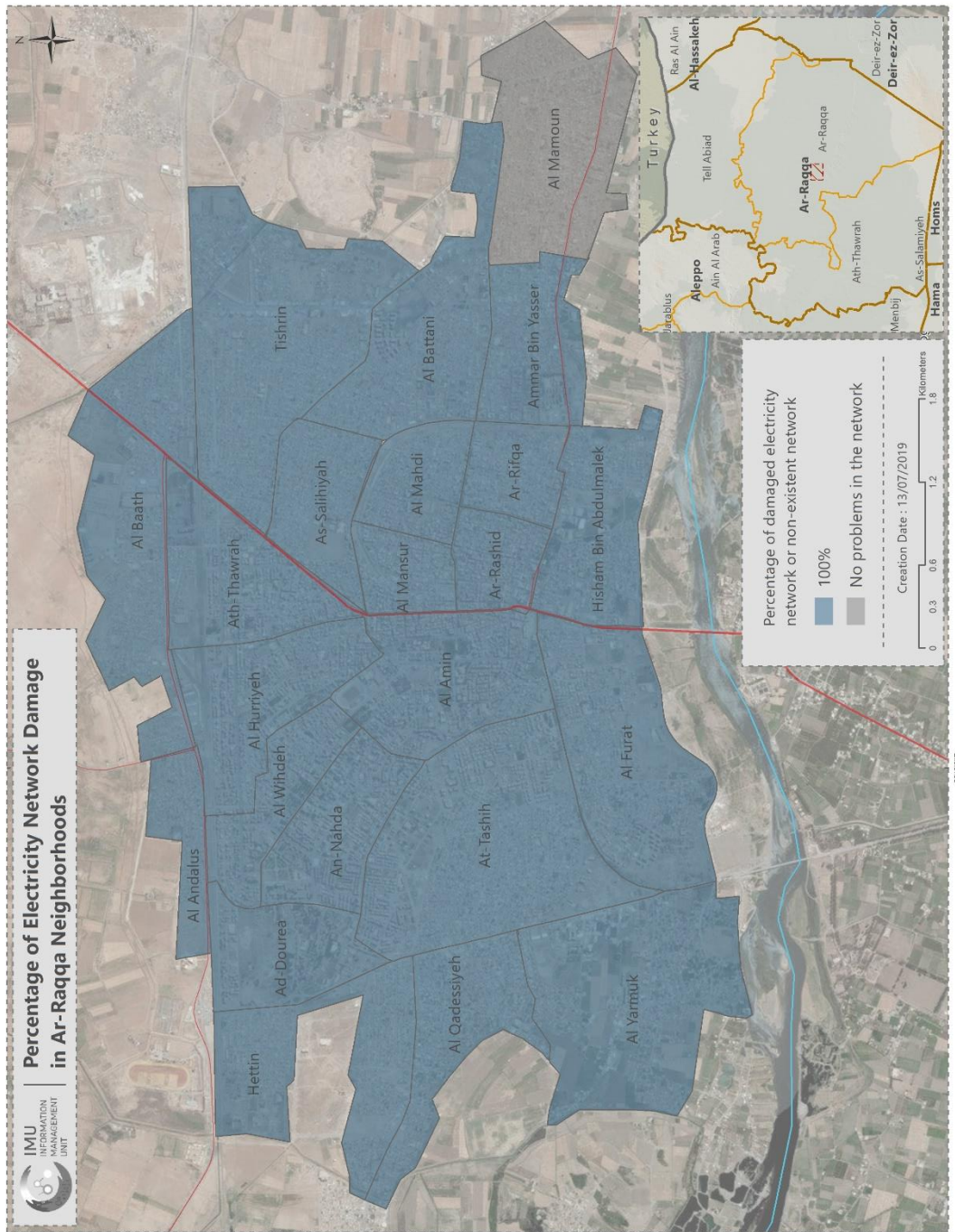
1. The Public Electricity Grid

Prior to the ongoing crisis, all neighborhoods of Ar-Raqqa city were covered with the public electricity grid; however, the entire electricity grid was completely destroyed during battles that took place in the city, especially against ISIL. After that, the electrical cables were robbed to be used as scrap and the electrical convertors were stolen too from all neighborhoods. Supported by the USAID, the SES Project installed a new electricity grid and electrical convertors in Al Mamoun neighborhood. The information sources confirmed that the program intends to continue installing the public grid in the other neighborhoods of Ar-Raqqa city.

Figure 15 The Technical Status of the Electricity Grid in Ar-Raqqa City at the Neighborhood Level



Map 8 Destruction in the Electricity Grid in Ar-Raqqa City at the Neighborhood Level



2. The Public Electricity Generators (Amperes)

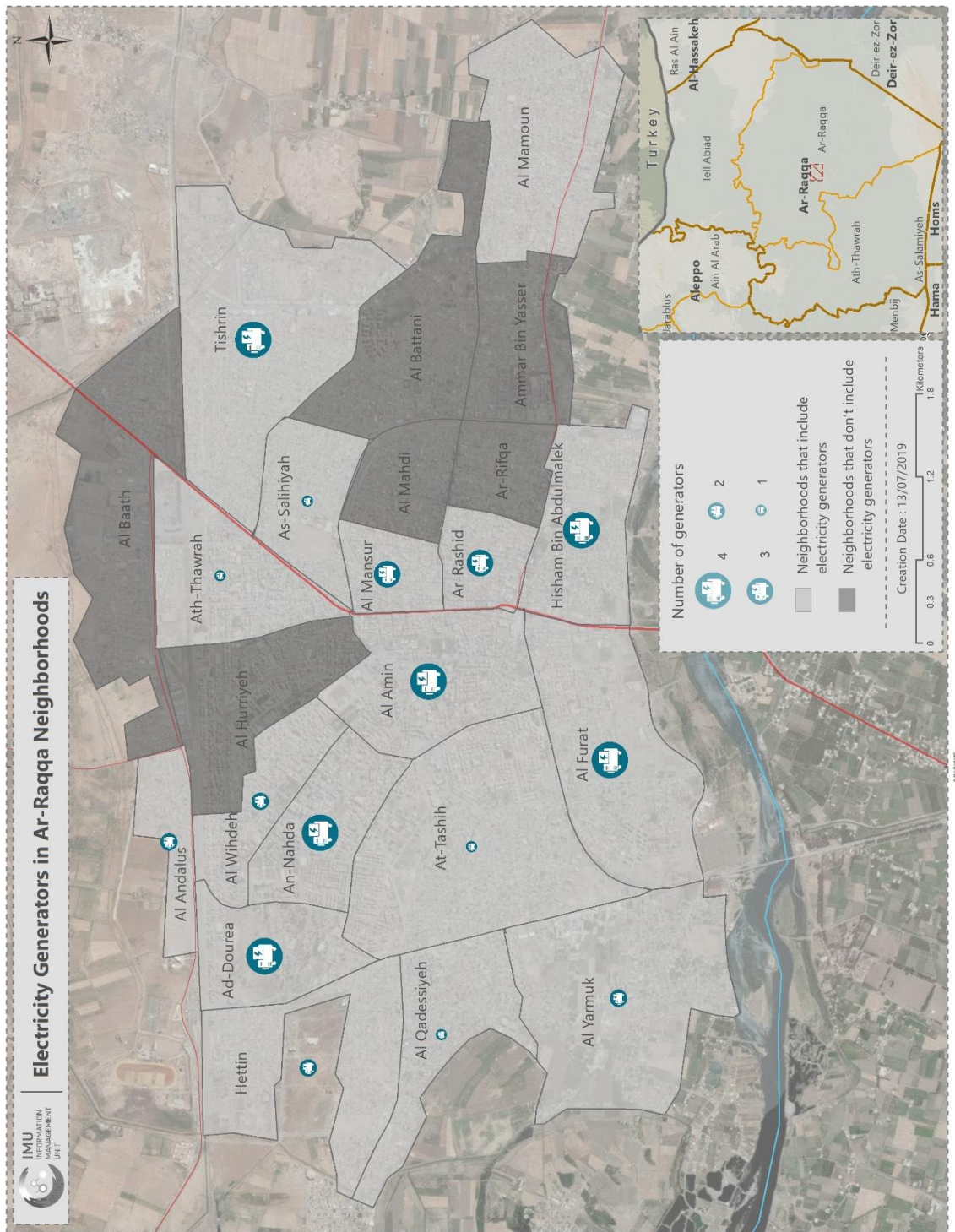
None of the neighborhoods in Ar-Raqqa city was supplied with electricity from the public grid, except for Al Mamoun neighborhood, as all cables in the other neighborhoods were destroyed, hence their dependence on public electricity generators (which are privately owned but termed “public” to refer to their distribution of electricity to the entire population and to be distinguished from private generators which supply only one housing with electricity). Ar-Raqqa city had 43 public electricity generators, but none in Al Baath, Al Hurriyeh, Ar-Rifqa, Al Battani, Al Mahdi or Ammar Bin Yasser neighborhoods. Some families had access to electricity from nearby neighborhoods which contain public generators, some well-off families had their private generators, whereas there were some families whose financial conditions were deteriorated and could not afford the electricity’s fees. The monthly subscription fee was 2,400 SYP per ampere (an equivalent to USD 4); however, a family needs a minimum of two amperes of electricity for lighting and some electronics only.

Table 14 Public Electricity Generators in Ar-Raqqa City at the Neighborhood Level

#	Name of Generator	Capacity	Covered Neighborhoods
1	Hanafi	800	Al Andalus
2	Hanafi	800	
3	Hweidi	800	Al Amin
4	Al-Matar	1,000	
5	Abu Aghiad	1,000	
6	Al-Qasso	1,000	
7	Arouni	850	At-Tashih
8	As-Salloum	1,000	Ath-Thawrah
9	Abu Hammoud	800	Ad-Dourea
10	Abu Hammoud	800	
11	Al-Hadri	600	
12	Hweidi	800	
13	Abdo	800	Ar-Rashid
14	AL-Qweider	800	
15	Al-Shuaib	600	
16	Ahmad	800	As-Salihyah
17	Muslim	800	Al Furat
18	Muslim	1,000	
19	Abu Assem	500	
20	Abu Abdullah	500	
21	Kasra	600	Al Qadessiyeh
22	Hammoud	600	Al Mamoun
23	Al-Hilal	600	Al Mansur
24	Al-Obaid	1,000	
25	Saeed	800	
26	Al-Hadri	850	An-Nahda
27	Oqla	500	

28	Abu Majd	800	
29	Al-Tadmori	800	
30	Abu Majd	800	Al Wihdeh
31	Al-Matar	1,000	
32	Abu Taha	800	Al Yarmuk
33	Abu Taha	500	
34	Al-Birri	800	Tishrin
35	Al-Birri	800	
36	Al-Hajjo	800	
37	Al-Hajjo	800	
38	Al-Aswad	1,000	Hettin
39	Al-Aswad	1,000	
40	Al-Alloush	600	Hisham Bin Abdulmalek
41	Abu Abdo	800	
42	Abu Abdo	800	
43	Muhammad	600	

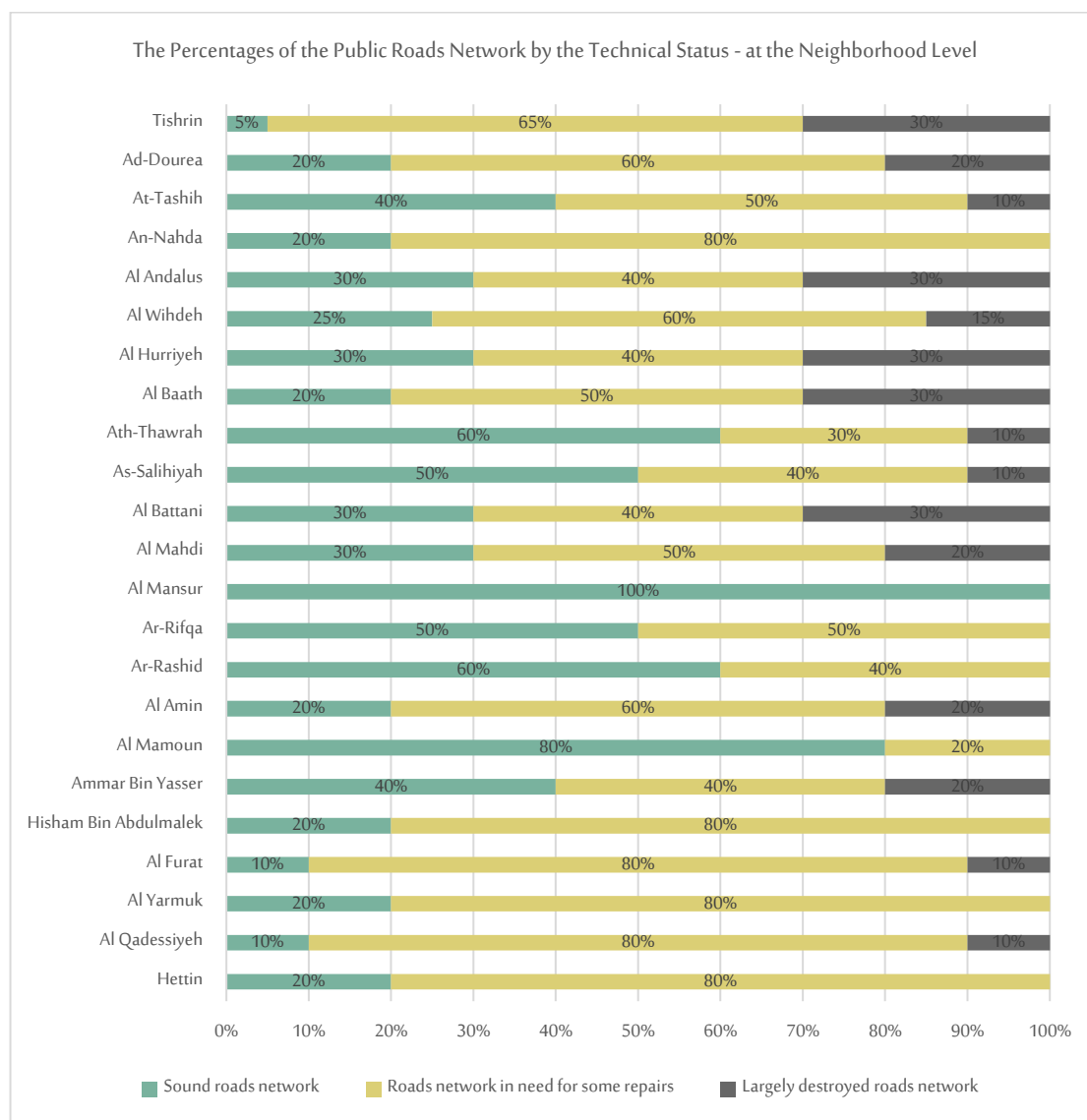
Map 9 Public Electricity Generators in Ar-Raqqa City



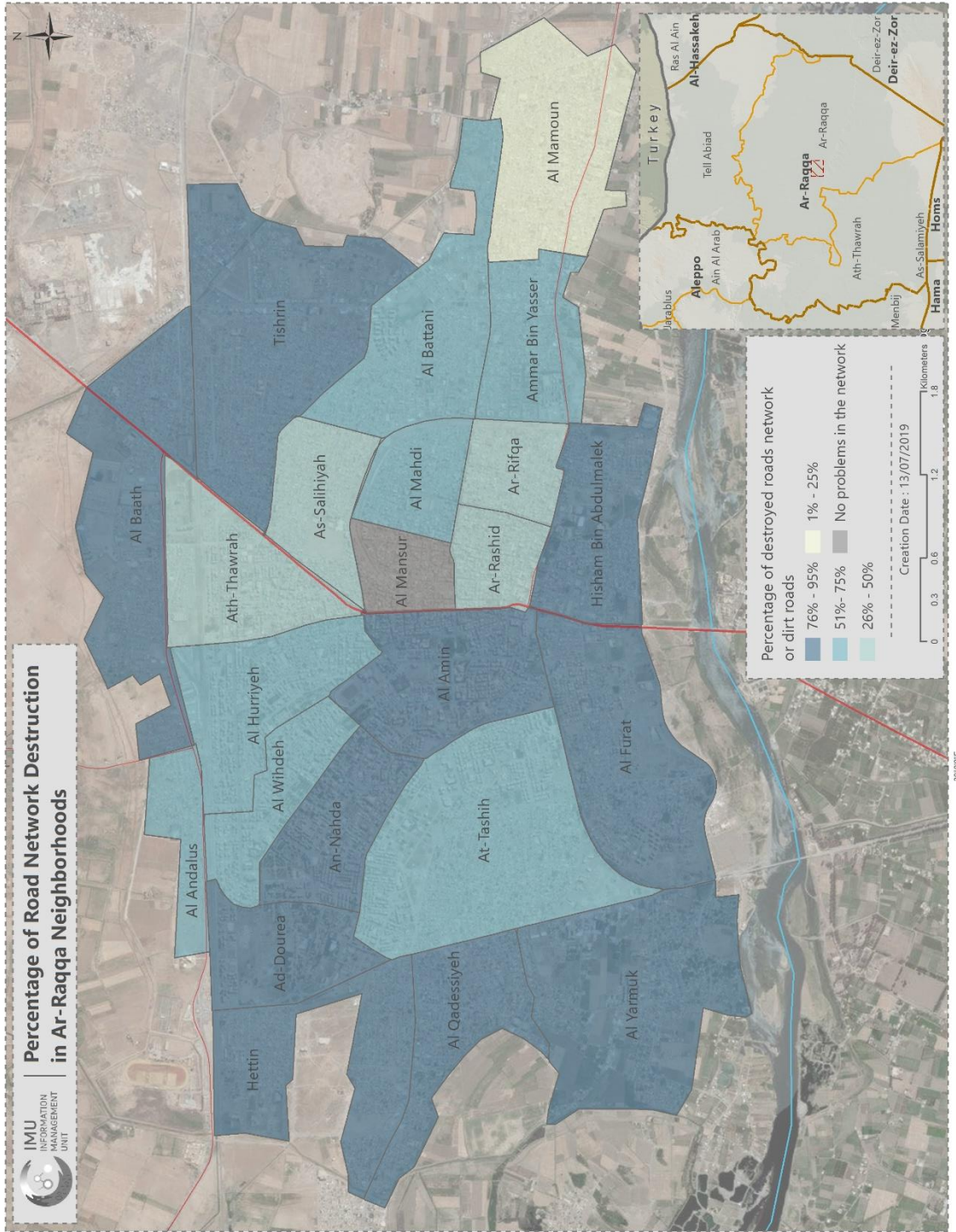
Ninth: Public Roads in Ar-Raqqa City

The study demonstrated that the percentage of destruction in the roads network exceeded 75% of roads within 10 neighborhoods (Tishrin, Al Baath, Hisham Bin Abdulmalek, Al Amin, Al Furat, An-Nahda, Ad-Dourea, Hettin, Al Qadessiyeh and Al Yarmuk neighborhoods). Completely/largely destroyed roads were found in Tishrin, Al Andalus, Al Hurriyeh, Al Baath and Al Battani neighborhoods, as 30% of their roads were irreparable and new roads needed to be constructed. On the other hand, the roads were sound and not destroyed in Al Mansur neighborhood.

Figure 16 The Technical Status of the Roads Network in Ar-Raqqa City at the Neighborhood Level



Map 10 Destruction in the Roads Network in Ar-Raqqa City at the Neighborhood Level



SECTION VII: ATH-THAWRAH CITY (TABAQA)

First: The Neighborhoods of Ath-Thawrah City

- 1) **First Neighborhood:** it stretches from the beginning of the Euphrates Dam on the east towards Maisaloun Roundabout on the west. All of its housings are multi-storey buildings. Before the ongoing crisis, the majority of its residents were from Alawites, while employees (non-Alawite residents) at the Dam or other governmental departments were not from Ar-Raqqa governorate. When the crisis started, all the Alawites left the neighborhood and the majority of its current residents are displaced from other cities and towns in Ar-Raqqa governorate and from Deir-ez-Zor governorate. The living conditions of the current residents range between poor and average (as the housings' rents are low when compared to other places). They are day-laborers or employees at the regime or the controlling party's departments. There is a good portion of unemployed residents and a destruction by 80% in the neighborhood.
- 2) **Second Neighborhood:** it stretches from Maisaloun Roundabout on the east towards the Itfa'yeh street on the west. 70% of its housings are composed of a single storey (known as traditional courtyard houses" and 30% are multi-storey buildings. Before the ongoing crisis, the majority of its residents were from the Alawites or Sunna from the countryside of Aleppo and Idlib governorates. Since the crisis started, the IDPs from Deir-ez-Zor governorate formed the majority of the neighborhood's residents. The living condition of the neighborhood's residents is average when compared to the other neighborhoods in the city and they are employees at the regime or the controlling party's departments or owners of commercial shops in the Second Neighborhood. The neighborhood is destroyed by 50%.
- 3) **Third Neighborhood:** it stretches from the Itfa'yeh street on the east towards Ad-Dallah Roundabout on the west. 80% of its housings are composed of a single storey "known as traditional courtyard houses" and 20% are multi-storey buildings. Before the ongoing crisis, the neighborhood's residents were from employees at the Dam, the oilfields and the military base, whereas they are mostly IDPs from Deir-ez-Zor governorate since the crisis began. The living conditions of the neighborhood's residents are good when compared to the other neighborhoods in the city and its percentage of destruction is very small as only two buildings and one courtyard house are destroyed.
- 4) **Al Msahher:** it stretches from the end of the Arid Street on the east towards As-Salam Street on the west. 100% of its housings are composed of a single storey. Before the ongoing crisis, the majority of its residents were from Deir-ez-Zor countryside (known as Albu Issa) and another part was from the area tribes (from the tribes of Ar-Raqqa countryside). The population demography has not changed since. The living conditions of the neighborhood's residents are average when compared to the other neighborhoods in the city. Some of the residents are employees at the regime or the controlling party's departments, some work in agriculture and some depend on remittances made by expatriates settled abroad. The percentage of destruction in this neighborhood is very little as only Halimah As-Sa'diyah school was destroyed.

- 5) **Al Manghiyeh:** it stretches from As-Salam Street on the east towards the Northern Market on the west. 100% of its housings are composed of a single storey. Before the ongoing crisis, its residents were from Aleppo northern countryside, and the population demography has not changed since. The living conditions of the neighborhood's residents are average when compared to the other neighborhoods in the city; some of them work in commerce and some are employees at the regime's departments. There is no destruction in this neighborhood.
- 6) **As-Snobar:** it stretches from Abu Bakr Mosque on the north down to Al-Kindi school on the south, and from Al-Wadi bakery on the west to Al-Kassarah on the east. 100% of its housings are composed of a single storey. Before the ongoing crisis, its residents were from Albu Saraya tribe in Ar-Raqqa eastern countryside and Deir-ez-Zor western countryside. The majority of the residents rely on remittances made by their relatives who are working as day-laborers in Lebanon. Their living condition is weak when compared to the other neighborhoods. The percentage of destruction does not exceed 1% in this neighborhood.
- 7) **As-Souq:** it stretches from Al-Khudar Northern Market on the north towards the traffic police building on the south, and from Fayez Mansour street on the east up to Main Street on the west. All of the neighborhood's housings are multi-storey buildings with commercial shops on their ground floors. Before the ongoing crisis, the residents were from Ath-Thawrah city and adjacent countryside, and the population demography has not changed since. The residents' living conditions is good when compared to the other neighborhoods. The bulk of the residents work in trade. There is no destruction there.
- 8) **Gharnatah:** it stretches from Al-Kindi school on the north towards Palestine street on the south, and from Fayez Mansour street on the west to the graveyard on the east. 100% of its housings are composed of a single storey. Before the ongoing crisis, its residents were from Ar-Raqqa tribes, Albu Saraya tribe in Deir-ez-Zor or Sokhani "from Sokhneh district, which is affiliated with Homs governorate". The bulk of its residents are still in their housings, and the majority of them are employees at the regime's departments and some depend on remittances made by their expatriate relatives. Their living conditions are average when compared to the other neighborhoods and there is no destruction in the neighborhood's buildings.
- 9) **Al Mahajea:** it stretches from the Southern Market on the north to Palestine street on the south, and from Fayez Mansour street on the east to the Main Street on the west. 80% of its housings are composed of a single storey and 20% are multi-storey buildings. Before the ongoing crisis, its residents were from Aleppo and Idleb countryside and were not displaced from their houses. The bulk of the residents are employees at the regime's departments, some depend on remittances made by their expatriate relatives and some work in commerce. The residents' living conditions are average when compared to the other neighborhoods and the percentage of destruction is by 20% of the neighborhood's buildings.
- 10) **Western Maqasem:** it stretches from the Main Street on the west to Al-Bakkour hospital on the east, and from Palestine street on the south to the garage on the north. 60% of its housings are two-storey buildings surrounded by house yards "villas" and 40% are multi-storey buildings. Before the ongoing crisis, the bulk of the residents were from Ar-Raqqa tribes and some were from Aleppo governorate. They depend on remittances made by their expatriate relatives in the Gulf, whereas a very small portion of them are employed at the regime's departments, in addition to IDPs from Deir-ez-Zor and Ar-Raqqa countryside. The residents' living conditions are good when

compared to the other neighborhoods and the percentage of destruction is by 30% of the neighborhood's buildings.

- 11) **Ar-Rafidein**: it stretches from the Main Street on the west to the Eastern Street on the east, and from Palestine street on the north towards the road linking Al Iskandariyah and the Main Street on the south. 100% of its housings are composed of a single storey. Before the ongoing crisis, the residents were from Wahab tribe - one of Ar-Raqqa tribes -, and they are still in their houses. Most of them depend on remittances made by their expatriate relatives and only some are employees at the regime's departments. The residents' living conditions range between average and good, and the percentage of destruction does not exceed 1% of the neighborhood's buildings.
- 12) **Al Buhayrah**: it stretches from Palestine street on the north towards Omar Al-Mukhtar school on the south, and from the Main Street on the east to the Western Street on the west. 10% of its housings are two-storey buildings surrounded by house yards "villas" and 90% are composed of a single storey. Before the ongoing crisis, the bulk of the residents were from Ar-Raqqa tribes, and they are still in their houses. The bulk of the residents work in commerce, some depend on remittances made by their expatriate relatives and very few are employees at the regime's departments. The residents' living conditions are average when compared to the other neighborhoods, and the percentage of destruction does not exceed 2% of the neighborhood's buildings.
- 13) **Az-Zweiqat**: it stretches from the graveyard between Az-Zweiqat and Al Iskandariyah on the south up to the "cliff/slope" on the north, and from the Eastern Road on the west to the Safsaf checkpoint on the east. 100% of its housings are composed of a single storey "traditional courtyard houses". Before the ongoing crisis, the bulk of the residents were from Az-Zweiqat tribe (from the district's tribes), there are families from Aleppo eastern countryside "from As-Safira sub-district in particular", and they are still in their houses. The bulk of the residents depend on remittances made by their expatriate relatives working as day-laborers in Lebanon, also the percentage of women's employment increases in this neighborhood. The residents' living conditions are weak when compared to the other neighborhoods, and there is no destruction in the neighborhood's buildings.
- 14) **Al Iskandariyah**: it stretches from the graveyard between Az-Zweiqat and Al Iskandariyah on the north towards Sadeq Gas Station on the south, and from Al Iskandariyah street and junction on the west till the end of Ath-Thawrah city on the east. 100% of its housings are composed of a single storey. Before the ongoing crisis, the bulk of the residents were from Ar-Raqqa tribes. The bulk of the residents work in agriculture and manual labor, whereas very few are employees at the regime's departments. The residents' living conditions are average when compared to the other neighborhoods, and the percentage of destruction does not exceed 1% of the neighborhood's buildings.
- 15) **Ayed Saghir (Al Etha'a)**: it stretches from Al-Eddikhar residences on the north towards Ayed Akash road on the south, and from the road linking Al-Alam roundabout and the junction on the west to Ash-Shaleihat on the east. 90% of its housings are composed of a single storey "known as traditional courtyard houses" and 10% are multi-storey buildings. Before the ongoing crisis, the bulk of the residents were from Ar-Raqqa tribes, and they are still in their houses. Most of them depend on remittances made by their expatriate relatives and some are employees at the regime's departments. The residents' living conditions are average when compared to the other neighborhoods, and the percentage of destruction does not exceed 1% of the neighborhood's buildings.

- 16) **Ayed Saghir (Akash)**: it stretches from Ayed Akash road on the north up to the Mills and the Prison road on the south, and from the road linking Al-Alam roundabout and the junction on the east to the lake on the west. 100% of its housings are composed of a single storey “known as traditional courtyard houses”. Before the ongoing crisis, the bulk of the residents were from Ar-Raqqa tribes, and they are still in their houses. Most of them work in agriculture, some depend on remittances made by their expatriate relatives and very few are employees at the regime’s departments. The residents’ living conditions are average when compared to the other neighborhoods, and there is no destruction in the neighborhood’s buildings, except for one destroyed school.
- 17) **Ayed Saghir (Fassih)**: it stretches from the Mills and the Prison road on the north till the junction in the south, and from the road linking Al-Alam roundabout and the junction on the east till the lake and Hajj Aswad Hill on the west. 100% of its housings are composed of a single storey “known as traditional courtyard houses”. Before the ongoing crisis, the bulk of the residents were from Ar-Raqqa tribes, in addition to some from As-Safira sub-district in Aleppo eastern countryside, and they are still in their houses. Currently, there are families displaced from Aleppo eastern countryside living in random tents on the outskirts of the neighborhood. The bulk of them work in agriculture and some depend on remittances made by their expatriate relatives. The residents’ living conditions range between weak and average, and there is no destruction in the neighborhood’s buildings.
- 18) **Ayed Saghir (Ash-Shaleihat)**: it stretches from Ayed Al Etha’a on the east up to the lake on the west and is composed of villas owned by the more prosperous classes in Ath-Thawrah city; however, most of them are not fully constructed or equipped for habitation. All of the neighborhood’s residents were displaced since the beginning of the crisis. Those villas are repaired and equipped for habitation by the CHF and inhabited by IDPs. There is no destruction in the neighborhood.

Map 11 The Neighborhoods of Ath-Thawrah City

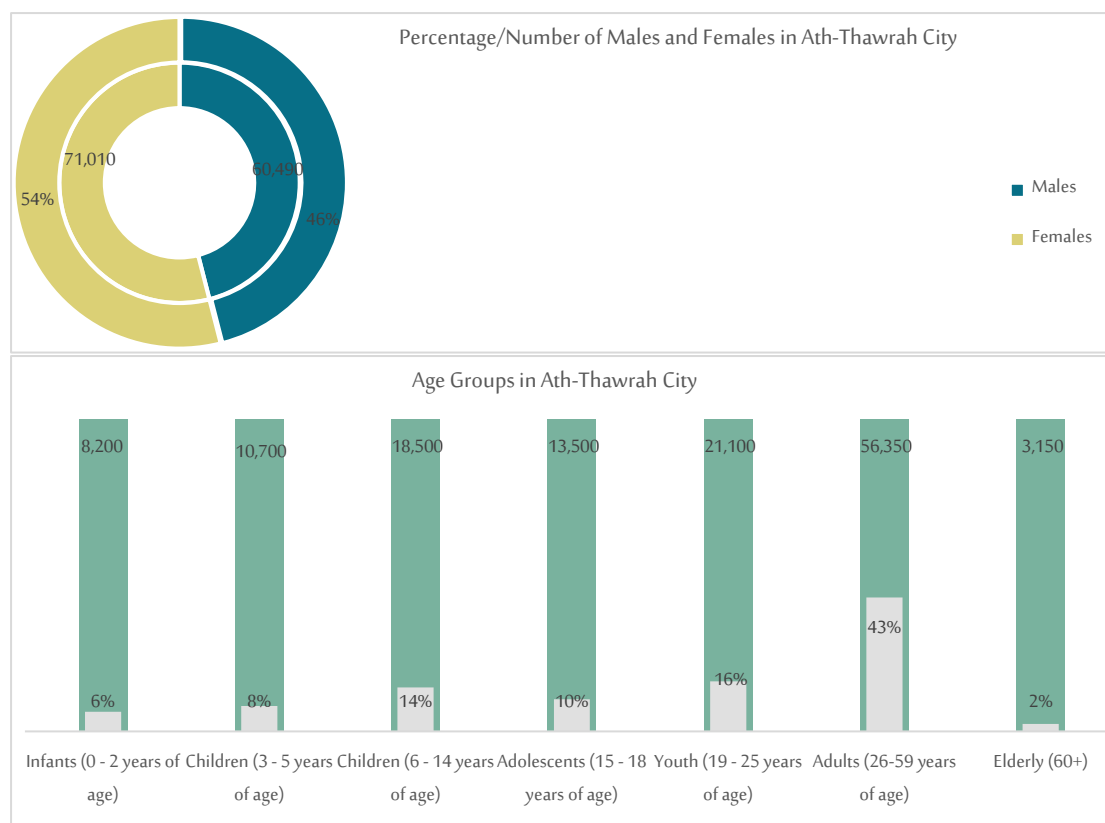


Second: The Demographic Composition of Ath-Thawrah City

1. The Population Census and Age Groups in Ath-Thawrah City

According to population statistics conducted by the IMU enumerators, of the ACU, Ath-Thawrah city had a population of 131,500 people in June 2019; of which females constituted 54% (71,010 females) and males constituted 46% (60,490 males).

Figure 17 The Population Census by Gender and Age Groups in Ath-Thawrah City



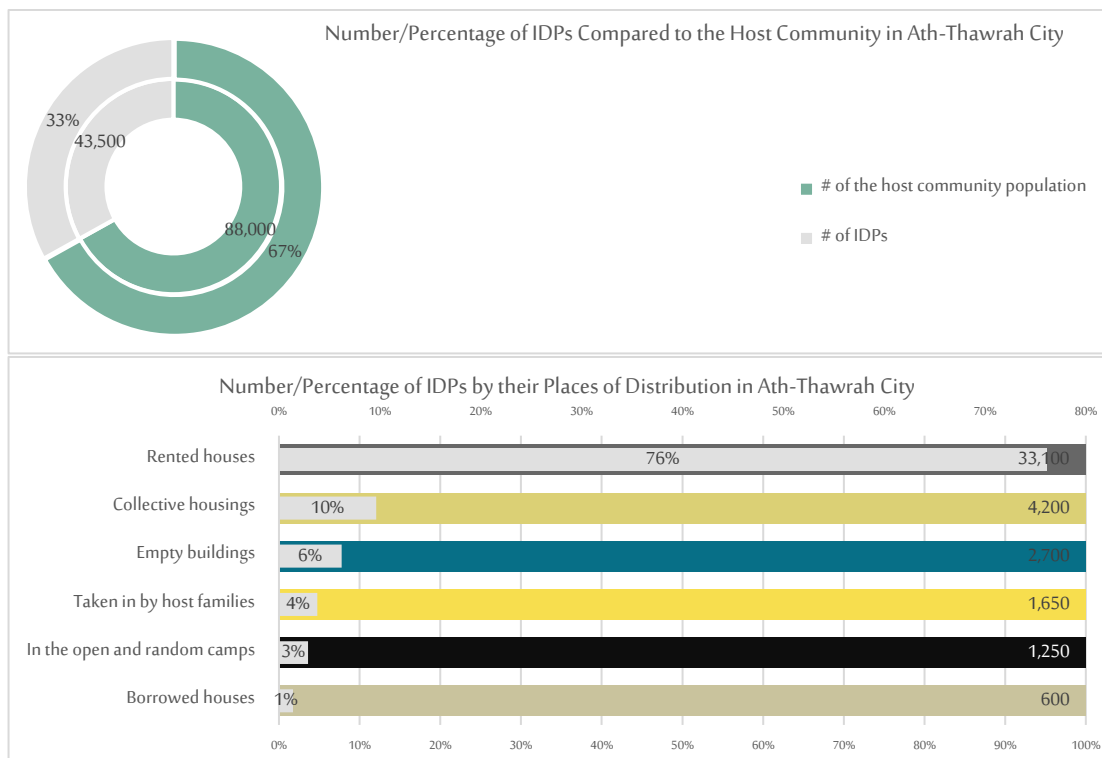
Before 2016, Ath-Thawrah sub-district used to be considered as a sub-district containing one city only without any other villages. After 2017, and as per the administrative divisions accredited by OCHA, Ath-Thawrah city was divided into two parts: Ath-Thawrah city and Ayed Saghir town, which contained the four neighborhoods nearby the lake (Ayed Saghir: Al Etha'a, Akash, Fassis and Ash-Shaleihat neighborhoods). This report presents both Ath-Thawrah city and Ayed Saghir town as one: Ath-Thawrah city.

The population of Ath-Thawrah city (both Ath-Thawrah and Ayed Saghir parts) was 131,500 people. The age group of infants constituted 6% (8,200 infants) of the city's population, children between 3-5 years of age formed 8% (10,700 children) and children between 6-14 years of age – the primary school-aged children - formed 14% (18,500 children) of the city's population. Adolescents between 15-18 years of age constituted 10% (13,500 adolescents), adults between 26-59 years of age formed 43% (56,350 adults) and elderly people over 60 years of age formed 2% (3,150 people) of the city's population.

2. The IDPs and their Distribution Places in Ath-Thawrah City

In Ath-Thawrah city, there were 43,500 IDPs, constituting 33% of the city's population, and 88,000 host community members, constituting 67% of the city's population.

Figure 18 IDPs and their Distribution Places in Ath-Thawrah City



Ath-Thawrah city was newly established with the Euphrates Dam in 1968. The regime intended to localize populations from various Syrian governorates as well as from the district's tribes in the city. The city also contained Alawites for whom the regime secured job opportunities at the Dam. With every change in its controlling party, Ath-Thawrah city witnessed a recurrent demographic change. When it became out of the regime control in January 2013, all Alawite families left the city and their houses. With ISIL's control over the city in April 2014, some of ISIL's fighters stayed in the city for the greater availability of services there than it was in other cities and towns in Ar-Raqqa governorate. All of ISIL's families left the city when the PKK's forces seized it in April 2014.

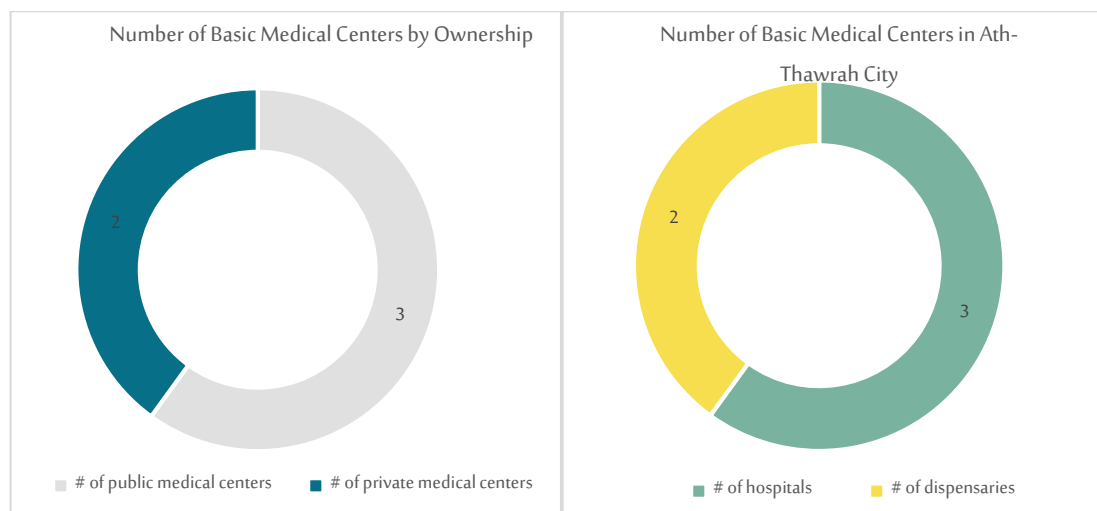
At the time of this report, the number of IDPs in Ath-Thawrah city was 43,500 IDPs. 76% (33,100 IDPs) of the IDPs stayed in rented housings, some of which were not fully equipped. 10% (4,200 IDPs) of the IDPs stayed in collective housings, and most importantly 8 Athar school in Ar-Rafidein neighborhood, Ath-Thawrah school in Al Mahajea neighborhood, Al Iskandariyah 2 school in Al Iskandariyah neighborhood, the Artistic Crafts for Women and Ibn Sina schools in Western Maqasem neighborhood, Jamal Abdunnasser school in the First neighborhood, Izz Ad-Din Al-Qassam schools in Az-Zweiqat neighborhood, Bassam Hamsho school in Al Buhayrah neighborhood and the Political Party and the Vanguard buildings in the Second neighborhood. 6% (2,700 IDPs) of the IDPs stayed in empty buildings, the partially or completely destroyed housings and buildings, and the remaining 3% (1,250 IDPs) of the IDPs stayed in the open and in random camps, which were located in Ayed Saghir (Fassih) and Ayed Saghir (Ash-Shaleihat) neighborhoods.

Third: The Health Sector in Ath-Thawrah City

1. Entities Supervising and Supporting the Medical Sector in Ath-Thawrah City

Ath-Thawrah city included five basic medical points; three hospitals and two dispensaries, in addition to a number of private clinics and analysis laboratories that were not included in this report.

Figure 19 Numbers of Hospitals and Dispensaries in Ath-Thawrah City



Ath-Thawrah city contained three hospitals; the publicly-owned General Hospital located in Tabaqa, supervised by the PKK’s health office and supported by Medical Relief International and Un Ponte Per (an Italian NGO), whereas the other two were privately-owned hospitals supervised by the owners and their operational expenses were secured from treatment costs paid by the patients. Further, Ath-Thawrah city contained two dispensaries supervised by the PKK’s health office and supported by Monitor and Medical Relief NGOs.

Table 15 Information of Medical Centers in Ath-Thawrah City

Name of Hospital/Dispensary	Supervising Entity	First Donating Entity	Second Donating Entity
Tabaqa General Hospital	Health Office - PKK	Medical Relief International	Un Ponte Per-UPP (UPP-Italian NGO)
Al-Bakkour Surgical Hospital	Private owner	None	None
Modern Medicine Hospital	Private owner	None	None
Tabaqa Health Dispensary	Health Office - PKK	Health Office - PKK	Monitor
Tabaqa Primary Health Care Center	Health Office - PKK	Medical Relief International	-

2. Medical Cadres and Specializations in Ath-Thawrah City

Hospitals and dispensaries in Ath-Thawrah city contained 74 doctors; 9 females and 65 males. Those numbers do not reflect the actual condition of medical cadres there, as a part of the doctors work in more than one hospital in the city and might be working in other hospitals in neighboring cities, also a number of doctors work in their private clinics, which were not mentioned in this report. The medical specializations in Ath-Thawrah city basic medical centers included general surgery, pediatrics, internal medicine, gynecology, neurology, urology, ophthalmology, otolaryngology, pulmonology, orthopedics, endocrinology and radiology. There were 43 male nurses and 65 female nurses in the city's hospitals and dispensaries, in addition to 56 technicians from various specializations, 21 administrators and 42 cleaning/maintenance staff.

Table 16 Information of Medical Cadres in Ath-Thawrah City

Name of Hospital/Dispensary	Total # of Physicians	Medical Specialties	# of Female Physicians	# of Male Nurses	# of Female Nurses	# of Technicians	# of Administrators	# of Cleaning/Maintenance Staff
Tabaqa General Hospital	27	General surgery Pediatrics Internal medicine Gynecology Radiology	2	10	18	12	6	8
Al-Bakkour Surgical Hospital	19	Gynecology Pediatrics General surgery Internal medicine Neurology Urology Ophthalmology Otolaryngology Pulmonology Orthopedics Endocrinology	4	15	22	22	6	12
Modern Medicine Hospital	20	General surgery Internal medicine Cardiology Urology Orthopedics Gynecology Neurology Pulmonology	3	12	20	20	3	10
Tabaqa Health Dispensary	4	General medicine Internal medicine Pediatrics	0	3	2	2	2	9
Tabaqa Primary Health Care Center	4	Gynecology Pediatrics	0	3	3	0	4	3
Total	74		9	43	65	56	21	42

3. Equipment of Medical Centers in Ath-Thawrah City

The hospitals of Ath-Thawrah city contained 7 equipped operation rooms and 95 patient beds, yet none of them included a CT scan machine nor dialysis equipment. All hospitals and dispensaries had their generators, except for the Primary Health Care Center which depended on the public electricity grid only if available. The generators needed 9-15 liters of diesel per working hour.

Table 17 Equipment of Medical Centers in Ath-Thawrah City

Name of Hospital/Dispensary	# of Equipped Operation Rooms	# of Patient Beds	Is there a CT Scan?	Is the Hospital Equipped for Dialysis?	# of Generators?	Quantity of Diesel Needed for the Generators per Working Hour
Tabaqa General Hospital	3	30	No	No	1	
Al-Bakkour Surgical Hospital	2	35	No	No	2	Operating for 16-20 hours
Modern Medicine Hospital	2	30	No	No	1	15
Tabaqa Health Dispensary	-	-	-	-	2	9
Tabaqa Primary Health Care Center	-	-	-	-	None	-
Total	7	95	-	-	6	-

4. Number of Beneficiaries of Medical Services in Ath-Thawrah City

During June 2019, 17,300 patients were admitted to Ath-Thawrah city hospitals and dispensaries and 2,050 surgeries were conducted. The publicly-owned Tabaqa General Hospital and both dispensaries in the city provided free services. On the other hand, Al-Bakkour Surgical and the Modern Medicine hospitals provided remunerated services.

Table 18 Number of Beneficiaries of Medical Centers in Ath-Thawrah City

Name of Hospital/Dispensary	# of Patients during a One-month Period	# of Operations during a One-month Period	Cases of Free Service
Tabaqa General Hospital	2,000	850	All cases are free of charge
Al-Bakkour Surgical Hospital	600	700	All cases are paid for by patients
Modern Medicine Hospital	1,200	500	All cases are paid for by patients
Tabaqa Health Dispensary	6,000	-	All cases are free of charge
Tabaqa Primary Health Care Center	7,500	-	All cases are free of charge
Total	17,300	2,050	

5. The Needs of the Medical Centers in Ath-Thawrah City

Tabaqa General Hospital needed a CT scan machine, intensive care ward and internal medicine ward. Al-Bakkour Surgical Hospital needed a boost converter to step up the voltage in the public electricity grid, a CT scan machine, a portable radiology machine, dialysis machines, a cardiac catheter, a medical ventilator, newborns' incubators and an endoscope. The Modern Medicine Hospital needed a CT scan machine and a dialysis machine. Tabaqa Health Dispensary needed a refrigerator for vaccines, two oxygen generators, three nebulizer, a laboratory for liver and kidney function tests and complete blood count, a microscope to detect leishmaniasis parasites, a dry sterilizer, an ambulance, a laptop, a filing cabinet, salaries for the cadres, diabetes medications for 320 patients, psychological support items (toys) for children suffering from psychological symptoms, blood pressure and heart diseases medications for 450 patients and neurological medications for 96 patients. Tabaqa Primary Health Care Center needed medications, an ultrasound device, a CT scan machine and laboratory equipment.

Table 19 The Needs of the Medical Centers in Ath-Thawrah City

Name of Hospital/Dispensary	Needs
Tabaqa General Hospital	CT scan machine – Intensive care ward – Internal medicine ward
Al-Bakkour Surgical Hospital	A boost converter to step up the voltage in the public electricity grid – CT scan machine – Portable radiology machine – Dialysis machines – Cardiac catheter – Medical ventilator - Newborns' incubators – Endoscope
Modern Medicine Hospital	CT scan machine – Dialysis machine
Tabaqa Health Dispensary	Refrigerator – Oxygen generator (X2) – Nebulizer (X3) – Laboratory for liver and kidney function tests and complete blood count – Microscope to detect leishmaniasis parasites – Dry sterilizer – Ambulance – Laptop – Filing cabinet – Salaries for the cadres – Diabetes medications for 320 patients – Psychological support items (toys) for children suffering from psychological symptoms – Blood pressure and heart diseases medications for 450 patients – Neurological medications for 96 patients
Tabaqa Primary Health Care Center	Medications – Ultrasound device – CT scan machine – Laboratory equipment

Fourth: Bakeries in Ath-Thawrah City

1. Number of Bakeries and Price of Bread in Ath-Thawrah City

Ath-Thawrah city had 10 privately-owned bakeries. Seven bakeries produced subsidized bread, which is the most commonly consumed and made from a mix of soft and durum wheat flour, while adding a higher percentage of the latter. The other three bakeries produced Siyahi bread made from a mix of durum and soft wheat flour, while adding a higher percentage of the latter; "bread produced from this flour is whiter, and it is known as 00 white flour". Al-Siyahi bread is less satiating and more expensive when compared to subsidized bread. The cost of Siyahi bread "non-subsidized bread" was 200 SYP (an equivalent to USD 0.33) per 1 kg, whereas the cost of subsidized bread was 125 SYP (an equivalent to USD 0.2) per 1 kg (an equivalent to 8 loaves).

Figure 20 Number of Bakeries and Price of Bread in Ath-Thawrah City



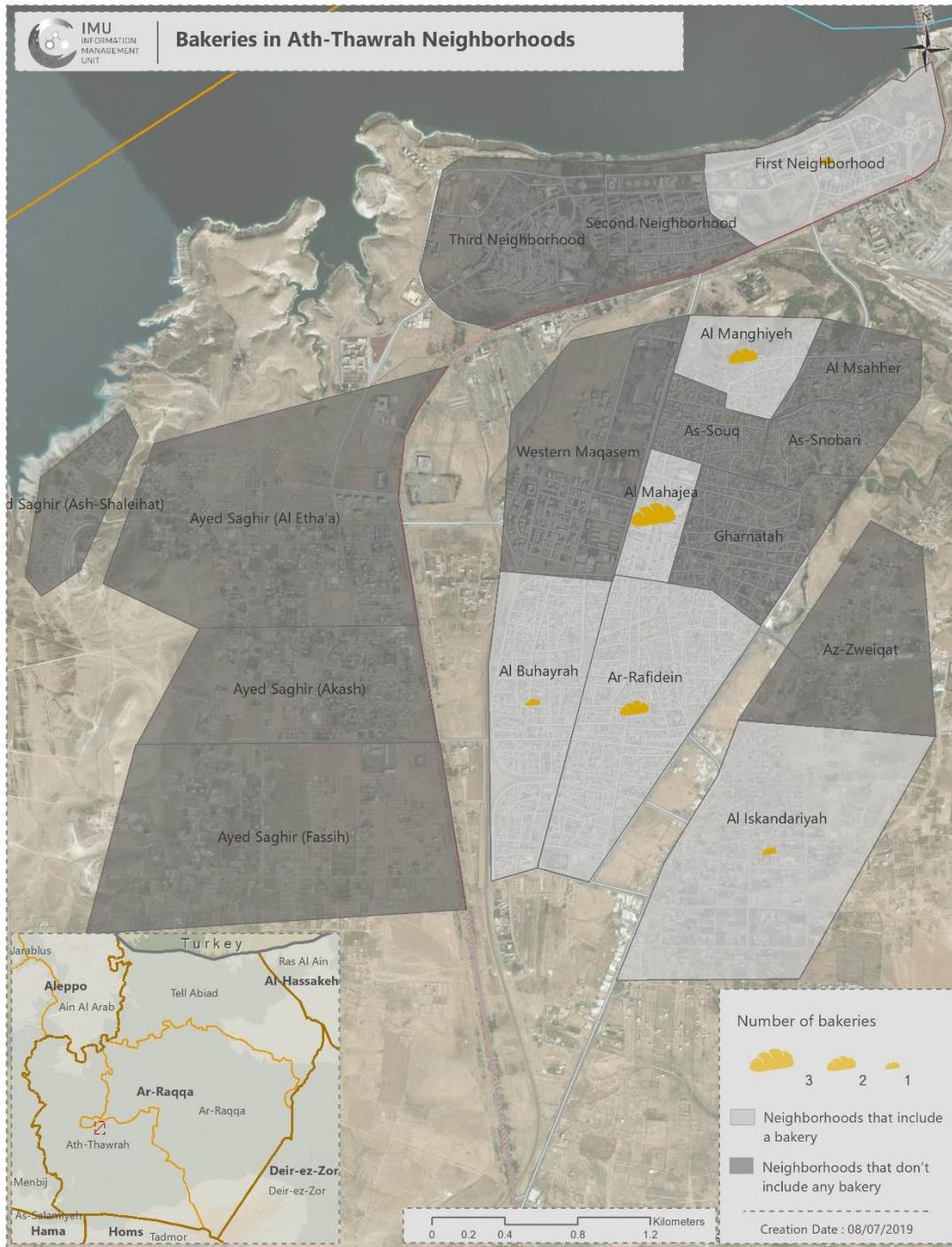
2. Entities Supervising the Bakeries and their Cadres in Ath-Thawrah City

All private bakeries in Ath-Thawrah city were supervised by their owners. 7 bakeries were supported with fuel and flour at reduced prices in return of producing the quantity of flour received from the Committee of Bakeries and selling it at a reduced price (125 SYP per 8 loaves). Three bakeries were not receiving any support, rather purchasing flour and fuel from the market and selling the bread at the market price.

Table 20 Bakeries in Ath-Thawrah City and Entities Supervising them

Name of Bakery	Location/Neighborhood	Owner/Supervising Entity	Subsidizing Entity	Type of Subsidization	# of Administrators	# of Technicians	# of Workers
Al Iskandariyah	Al Iskandariyah neighborhood	Private owner	Committee of Bakeries	Fuel - Flour	2	2	7
Al-Mabli	Al Manghiyeh neighborhood	Private owner	Committee of Bakeries	Fuel - Flour	1	1	6
Al-Yatim	Ar-Rafidein neighborhood	Private owner	Committee of Bakeries	Fuel - Flour	1	1	7
Al-Tayyawi	Al Manghiyeh neighborhood	Private owner	Committee of Bakeries	Fuel - Flour	1	1	4
Al-Hawouz	Al Buhayrah neighborhood	Private owner	Committee of Bakeries	Fuel - Flour	1	2	6
Abu Salmo	Al Mahajea neighborhood	Private owner	Committee of Bakeries	Fuel - Flour	1	1	8
First Neighborhood Bakery	First neighborhood	Private owner	Committee of Bakeries	Fuel - Flour	1	1	7
Al-Baraem	Ar-Rafidein neighborhood	Private owner	None	None	2	2	10
Al Rayyan	Al Mahajea neighborhood	Private owner	None	None	2	2	12
Tibah	Al Mahajea neighborhood	Private owner	None	None	1	1	6

Map 12 Number of Functional Bakeries in Ath-Thawrah City by Neighborhoods



3. The Bakery's Production Capacity and the Bread's Production Cost in Ath-Thawrah City

The actual productive capacity of bakeries in Ath-Thawrah city ranged between 3-6.5 tons per shift. The cost of producing 1 ton of bread (without the flour's cost) in subsidized bakeries was 20,000 SYP (an equivalent to USD 33.5), whereas the cost of producing 1 ton of bread (without the flour's cost) in non-subsidized bakeries was 45,000 SYP (an equivalent to USD 75).

Table 21 The Bakeries' Production Capacity and the Bread's Production Cost in Ath-Thawrah City

Name of Bakery	Actual Productive Capacity of the Bakery/ton	Current Quantity of Production	# of Production Lines in the Bakery	Cost of Producing 1 ton of Bread/USD	Where does the Bakery get its Operational Expenses from?	Where does the Bakery get its Flour from?	Maintenance Work
Al Iskandariyah	6.5	6.5	2	20,000	From selling bread	Committee of Mills	Replacement of the water tank
Al-Mabli	5	3	1	20,000	From selling bread	Committee of Mills	Belts – Diesel injectors
Al-Yatim	5	3	1	20,000	From selling bread	Committee of Mills	Periodic maintenance
Al-Tayyawi	4	1.5	1	20,000	From selling bread	Committee of Mills	Engine belts
Al-Hawouz	6	4	2	20,000	From selling bread	Committee of Mills	Engine belts – Diesel injection pump
Abu Salmo	3	1.5	1	20,000	From selling bread	Committee of Mills	Engine belts
First Neighborhood Bakery	3	1.5	1	20,000	From selling bread	Committee of Mills	Periodic maintenance
Al-Baraem	6	3	2	45,000	From selling bread	Committee of Mills – Market	Sensors - Belts
Al Rayyan	6	3	2	45,000	From selling bread	Committee of Mills – Market	Periodic maintenance
Tibah	6	3	2	45,000	From selling bread	Committee of Mills – Market	Periodic maintenance

The actual productive capacity of a bakery means the quantity of bread produced per shift. The bakery's capacity varies by its size and equipment and depends on multiple standards and most importantly the number of production lines. The more the production lines, the higher the bakery's capacity. Similarly, the larger the fermentation conveyor belts and the oven, the higher the bakery's capacity.

The actual productive capacity of Al Iskandariyah bakery was 6.5 tons of bread per shift; this bakery had two production lines and produced 6.5 tons of bread daily at the time of preparing this report. The actual productive capacity of Al-Baraem, Al Rayyan, Tibah and Al-Hawouz bakeries was 6 tons of bread per shift; each bakery produced 3 tons daily whereas Al-Hawouz bakery produced 4 tons daily.

The cost of producing 1 ton of bread (without the flour's cost) was 20,000 SYP (an equivalent to USD 33.5) in bakeries subsidized with needed flour and fuel at a reduced price; the cost of fuel distributed by the Committee of

Bakeries was 75,000 SYP per 1 liter (an equivalent to USD 0.125) and the cost of flour distributed at a reduced price was 70,000 SYP (an equivalent to USD 117), whereas the other expenses (yeast, salt, water, wages of workers and maintenance expenses) were secured from selling bread.

The cost of producing 1 ton of bread (without the flour’s cost) was 45,000 SYP (an equivalent to USD 75) in non-subsidized bakeries (producing Siyahi bread) which get the needed flour and fuel from the market.

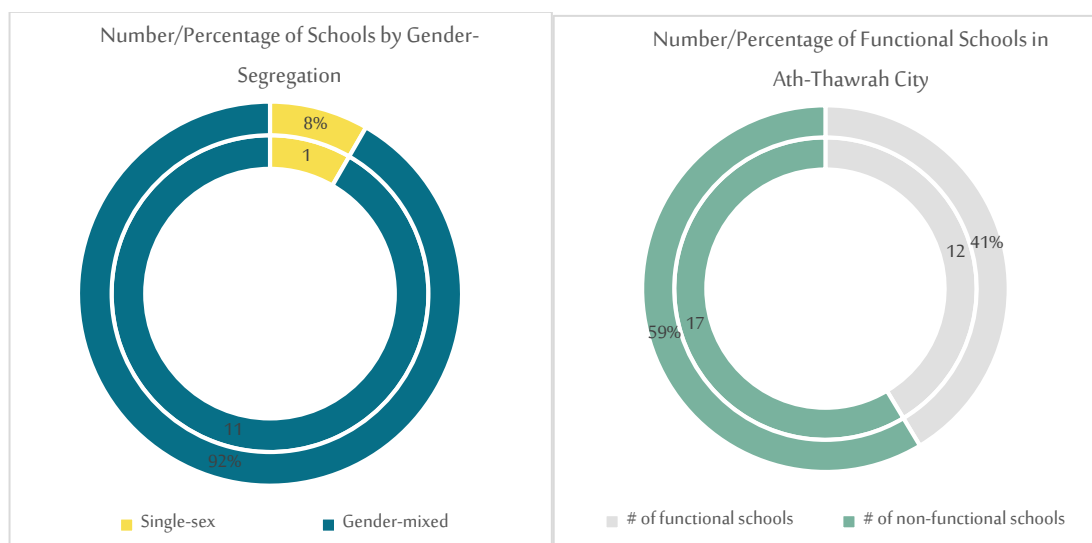
According to the MPI² issued by the IMU, the market price of fuel in Ar-Raqqa governorate ranged between 175-387 SYP (an equivalent to USD 0.29-0.77) per 1 liter, and the market price of flour was 265 SYP (an equivalent to USD 0.44) per 1 kg. Information sources confirmed that 1 ton of flour cost between USD 345-400 in the market, while the other expenses were secured from selling bread.

Fifth: Schools in Ath-Thawrah City

1. Information on Schools in Ath-Thawrah City

Ath-Thawrah city had 29 schools; 12 functional and 17 non-functional. Only one functional school was gender-segregated (for girls), whereas the other 11 schools were gender-mixed.

Figure 21 Numbers of Schools in Ath-Thawrah City and Gender Segregation



Ath-Thawrah city had 29 schools distributed within 11 neighborhoods, whereas seven neighborhoods (As-Souq, Al Manghiyeh, As-Snobar, Ayed Saghir (Al Etha'a), Ayed Saghir (Akash), Ayed Saghir (Fassih) and Ayed Saghir (Ash-Shaleihat) had no schools. The total accommodation capacities of all schools in the city were 25,900 students; however, the total accommodation capacities of functional schools reached 9,200 students only as 17 schools stopped working, whereas statistics conducted by the IMU’s enumerators indicated that there were 32,000 school-

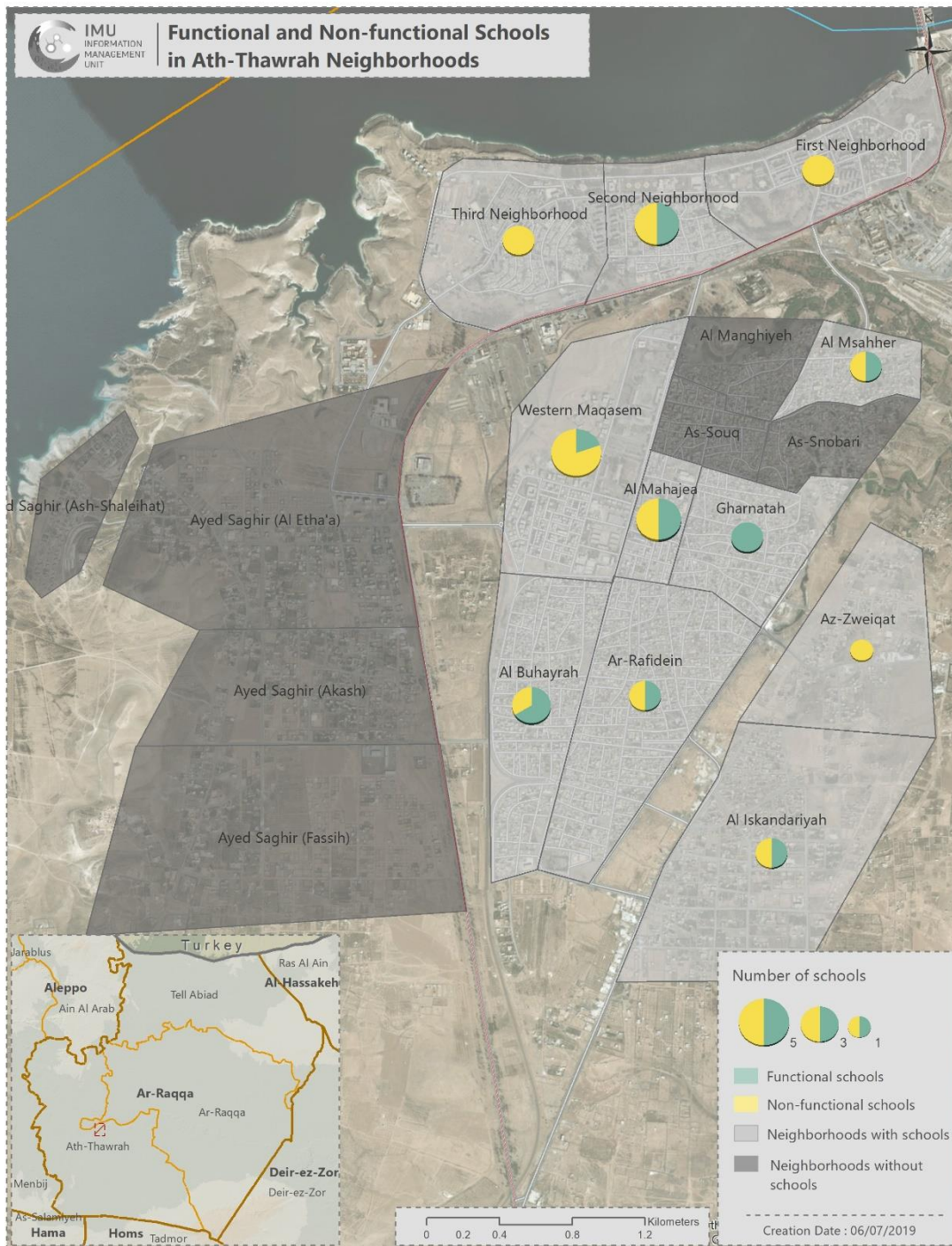
aged children in the city. Seven schools stopped working for being used as collective IDP shelters, five schools stopped working because their buildings were completely or partially destroyed, two schools stopped working because they were used by armed military factions, one school was closed for being used by a civil entity and another school was closed due to lack of teaching cadres. Only three functional schools had one shift, while the other nine schools had two shifts (a morning shift from 08:00 to 11:30 and an evening shift from 12:00 pm to 16:00).

Table 22 General Information on Schools in Ath-Thawrah City

#	Name of School	Neighborhood	Operational Status	Condition of School Building	Accommodation Capacity (per Shift)	Gender-mixed?	# of Shifts	Educational Stages Taught
1	Yusuf Al-'Azma	Al Buhayrah	Functional	Not destroyed	600	Gender-mixed	Two shifts	1-6
2	Cordoba	Second neighborhood	Functional	Not destroyed	900	Gender-mixed	Two shifts	1-6
3	As-Sunobari	Gharnatah	Functional	Not destroyed	700	Gender-mixed	Two shifts	1-6
4	Al-Kindi	Gharnatah	Functional	Not destroyed	700	Gender-mixed	Two shifts	1-6
5	Fayez Mansour	Al Mahajea	Functional	Not destroyed	1,000	Gender-mixed	Two shifts	1-6
6	7 Nisan	Al Mahajea	Functional	Not destroyed	500	For girls	One shift	7-9
7	Al-Jahiz	Al Msahher	Functional	Not destroyed	700	Gender-mixed	Two shifts	1-6
8	Al Qadessiyeh	Second neighborhood	Functional	Not destroyed	500	Gender-mixed	Two shifts	1-10
9	Al Iskandariyah (primary level)	Al Iskandariyah	Functional	Not destroyed	800	Gender-mixed	One shift	1-6
10	Omar ibn Al-Khattab	Al Buhayrah	Functional	Not destroyed	1,000	Gender-mixed	One shift	1-9
11	Ibn Zaydun	Western Maqasem	Functional	Not destroyed	1,000	Gender-mixed	Two shifts	1-9
12	16 Tishrin	Ar-Rafidein	Functional	Not destroyed	800	Gender-mixed	Two shifts	1-6
13	Ath-Thawrah	Al Mahajea	Non-functional	Partially destroyed	900	Used as a shelter		
14	8 Athar	Ar-Rafidein	Non-functional	Completely destroyed	1,000	Completely destroyed		
15	Al Iskandariyah 2	Al Iskandariyah	Non-functional	Not destroyed	900	Used as a shelter		
16	Artistic Crafts for Women	Western Maqasem	Non-functional	Partially destroyed	1,800	Used as a shelter		
17	An-Namouthajiyah	Second neighborhood	Non-functional	Not destroyed	600	Used by military factions		
18	Jamal Abdunnasser	First neighborhood	Non-functional	Not destroyed	900	Used as a shelter		
19	Sadd Al-Furat	First neighborhood	Non-functional	Not destroyed	900	Used by military factions		
20	Izz Ad-Din Al-Qassam	Az-Zweiqat	Non-functional	Not destroyed	600	Used as a shelter		
21	Muhammed Faris	Third neighborhood	Non-functional	Not destroyed	1,000	Used by military factions		
22	Bassam Hamsho	Al Buhayrah	Non-functional	Partially destroyed	1,000	Used as a shelter		

23	Ibn Al-Nafis	Second neighborhood	Non-functional	Not destroyed	1,000	Lack of teaching cadre
24	Agricultural Upper Secondary School	Third neighborhood	Non-functional	Completely destroyed	1,000	Completely destroyed
25	Industrial School	Western Maqasem	Non-functional	Completely destroyed	1,000	Completely destroyed
26	Al-'Orouba	Western Maqasem	Non-functional	Not destroyed	900	Closing the school because of controlling parties
27	Al-Yarmuk	Al Mahajea	Non-functional	Partially destroyed	900	Destroyed building
28	Halimah As-Sa'diyah	Al Msahher	Non-functional	Completely destroyed	900	Completely destroyed
29	Ibn Sina	Western Maqasem	Non-functional	Not destroyed	900	Used as a shelter
Total		-	-	-	25,400	-

Map 13 Numbers of Functional and Non-Functional Schools in Ath-Thawrah City by Neighborhoods

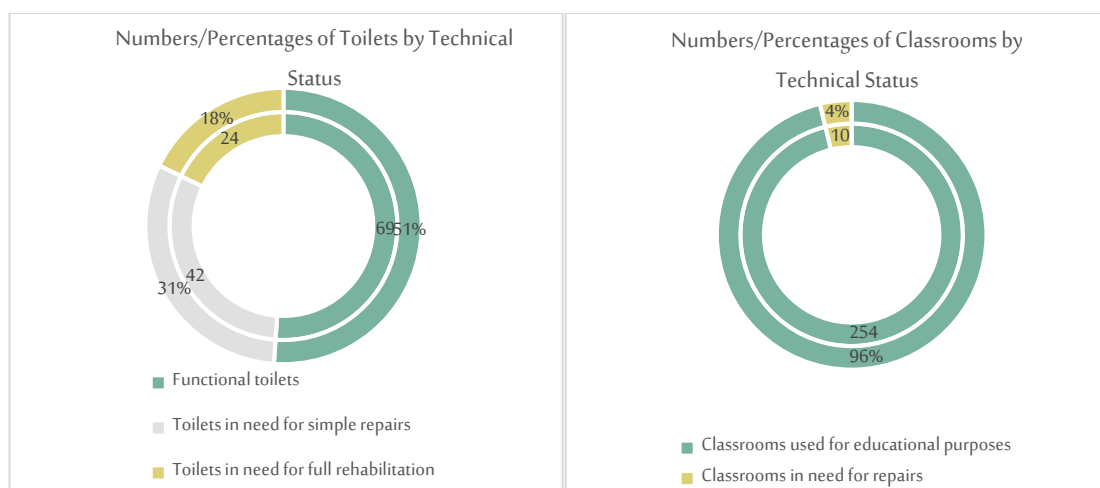


2. The Status of Schools in Ath-Thawrah City

96% (254 classrooms) of total rooms in functional schools in Ath-Thawrah city were used for educational purposes, whereas 4% (10 classrooms) only needed repairs.

51% (69 toilets) of total toilets in functional schools in the city were functional, 31% (42 toilets) needed simple repairs to become usable, whereas 18% (24 toilets) needed full rehabilitation.

Figure 22 Technical Status of Classrooms and Toilets in Ath-Thawrah City



77 windows in the city's functional schools needed repairs and 50 windows were irreparable and needed replacement, whereas 35 doors needed repairs and 21 doors were irreparable and needed replacement; those numbers include all windows and doors in functional schools.

Additionally, 312 student desks needed repairs and 52 desks were irreparable and needed replacement.

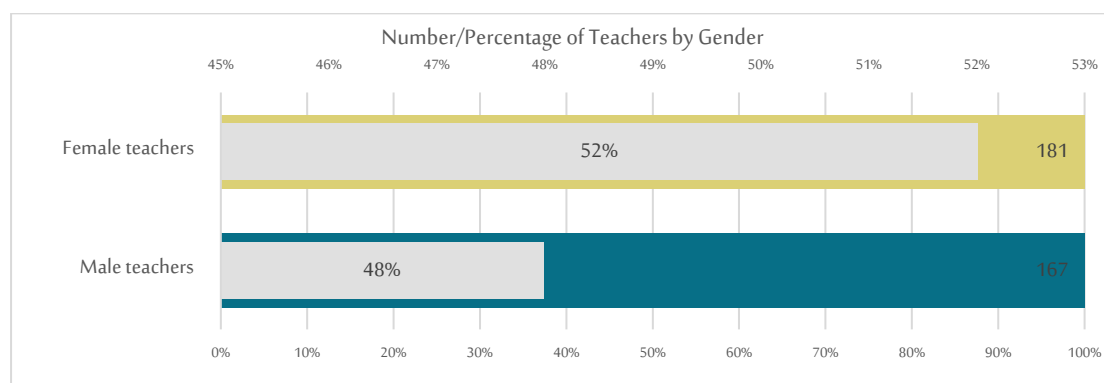
Table 23 Information on the Technical Status of School Facilities in Ath-Thawrah City

#	Name of School	# of Classrooms Used for Educational Purposes	# of Rooms in Need for Repairs	# of Windows in Need for Replacement	# of Windows in Need for Repairs	# of Doors in Need for Repairs	# of Doors in Need for Replacement	# of Functional Toilets	# of Toilets in Need for Simple Repairs	# of Toilets in Need for Full Rehabilitation	# of Desks in Need for Repairs	# of Desks in Need for Replacement
1	Yusuf Al-'Azma	26	0	0	0	0	0	2	2	2	0	0
2	Cordoba	20	0	0	15	2	1	8	2	0	20	0
3	As-Sunobari	21	3	40	0	3	0	6	6	2	0	0
4	Al-Kindi	15	0	0	0	0	6	6	6	0	35	0
5	Fayez Mansour	26	0	0	20	1	0	7	1	0	45	30
6	7 Nisan	10	4	0	10	5	2	7	0	5	20	0
7	Al-Jahiz	24	0	0	0	4	0	8	4	0	0	0
8	Al Qadessiyeh	14	0	0	7	0	0	5	7	0	20	0
9	Al Iskandariyah (primary level)	15	3	0	10	5	1	6	6	0	30	0
10	Omar ibn Al-Khattab	33	0	0	0	5	0	5	8	0	40	22
11	Ibn Zaydun	24	0	10	0	6	6	6	0	6	62	0
12	16 Tishrin	26	0	0	15	4	5	3	0	9	40	0
	Total	254	10	50	77	35	21	69	42	24	312	52

3. Teaching Cadres in Ath-Thawrah City

The schools in Ath-Thawrah city included 384 teachers; 48% (167 teachers) of which were males and 52% (181 teachers) were females. All of the city's schools had regular teachers, without any irregular teachers practicing this profession due to a lack in teaching cadres.

Figure 23 Number/Percentage of Teachers by Gender in Ath-Thawrah City



Regular teachers are those who have already been in the teaching profession before the ongoing crisis, as assigned by the Syrian Directorate of Education under permanent contracts. After graduating from college or intermediate institute, they undergo a recruitment competition held by the Ministry of Education, and those who pass the competition sign permanent job contracts with the Ministry and are assigned as per their various specialisations.

The results showed that all teachers in Ath-Thawrah city were regular yet remunerated by the controlling party because the regime stopped paying their wages or because they were forced to go to the regime-held areas to receive their salaries which might expose them to a risk of detention. The teacher's average wage was 49,500 SYP monthly (an equivalent to USD 83).

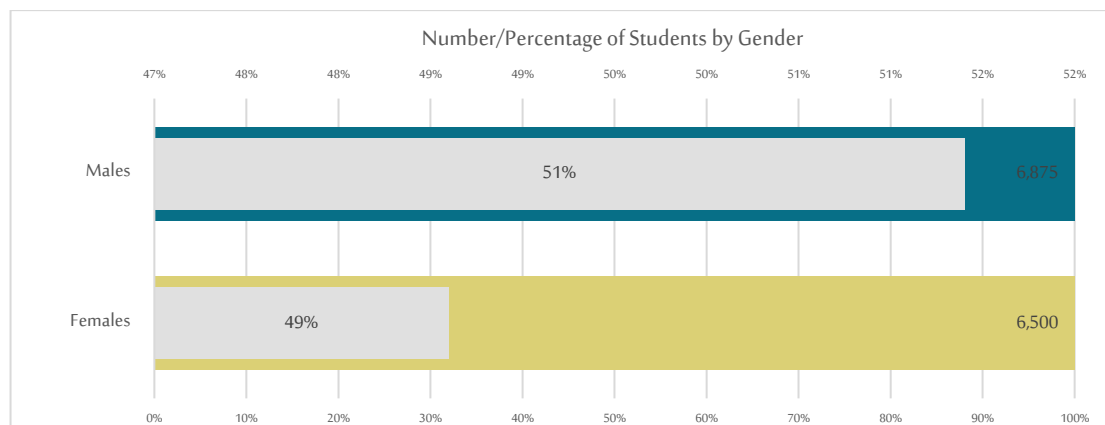
Table 24 Teaching Cadres in Ath-Thawrah City

#	Name of School	# of Male Teachers (teaching is their profession)	# of Female Teachers (teaching is their profession)	# of Irregular Teachers	Total Remunerated Teachers (males & females)	Average Salary
1	Yusuf Al-'Azma	15	17	0	32	49,500
2	Cordoba	22	18	0	40	49,500
3	As-Sunobari	12	14	0	26	49,500
4	Al-Kindi	9	12	0	21	49,500
5	Fayez Mansour	21	15	0	36	49,500
6	7 Nisan	9	15	0	24	49,500
7	Al-Jahiz	16	19	0	35	49,500
8	Al Qadessiyeh	10	13	0	23	49,500
9	Al Iskandariyah (primary level)	9	12	0	21	49,500
10	Omar ibn Al-Khattab	11	14	0	25	49,500
11	Ibn Zaydun	19	14	0	33	49,500
12	16 Tishrin	14	18	0	32	49,500
	Total	167	181	0	348	-

4. Students in Ath-Thawrah City

The schools in Ath-Thawrah city included 13,375 students; 51% (6,875 students) of which were males and 49% (6,500 students) were females.

Figure 24 Numbers of Students by Gender in Ath-Thawrah City



The demographic statistics, conducted by the IMU’s enumerators in the ACU, demonstrated that the number of school-aged children in Ath-Thawrah city was 32,000 children, whereas the number of students in the city’s schools was 13,375 students; which means that 58% of the city’s children were dropouts. According to those statistics, females formed 54% of the city’s total population, and 49% of students enrolled in schools, which means that the percentage of female dropouts was higher than that of males.

Table 25 Information on Students by Gender in Ath-Thawrah City

#	Name of School	# of Female Students	# of Male Students
1	Yusuf Al-'Azma	450	600
2	Cordoba	700	750
3	As-Sunobari	350	550
4	Al-Kindi	550	800
5	Fayez Mansour	600	800
6	7 Nisan	330	-
7	Al-Jahiz	500	575
8	Al Qadessiyeh	600	400
9	Al Iskandariyah (primary level)	500	400
10	Omar ibn Al-Khattab	670	450
11	Ibn Zaydun	400	900
12	16 Tishrin	850	650
	Total	6,500	6,875

Sixth: Water in Ath-Thawrah City

1. The Water Stations in Ath-Thawrah City

Ath-Thawrah city had two water stations. **1) Ath-Thawrah Water Station:** located near the Euphrates Dam, fed with water from the Dam's lake – not connected or supplied from any water wells -, supplies all of the city's neighborhoods with water, except the four neighborhoods of Ayed Saghir (Al Etha'a, Akash, Fassih and Ash-Shaleihat), contains 12 water pumps and its daily productive capacity was 2,500 m³/daily before the ongoing crisis and 1,500 m³/daily currently. **2) Ayed Saghir Water Station:** located near Ayed Saghir neighborhoods, fed with water from the Euphrates Dam Lake, supplies the four neighborhoods of Ayed Saghir and 10% of the other neighborhoods of the city, contains four pumps and its daily productive capacity was 700 m³/daily before the ongoing crisis and 500 m³/daily currently.

Those stations pump water into the public network, which covered 17 of the city's neighborhoods. Over 80% of the housings had water meters (to calculate the water consumption), while, on the other hand, 20% of the housings illegally withdrew water lines from the public water network without depending on any water meters to calculate the cost of water consumption. Further, the MSD of the PKK collected 1,000 SYP monthly from every house. Ath-Thawrah city had no water wells as the public network covered most of the city's neighborhoods. There were also irrigation canals from the Euphrates Dam Lake.

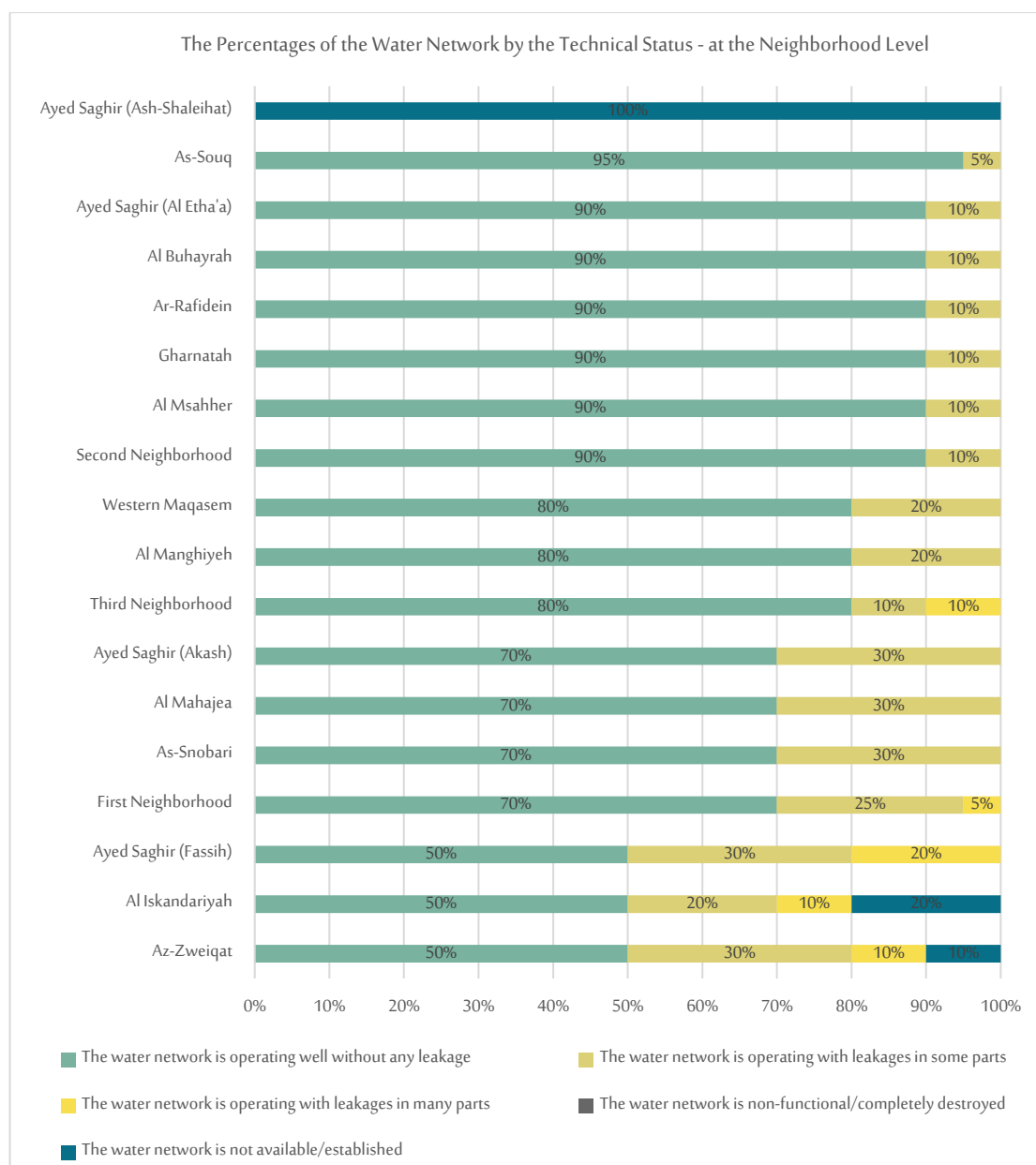
Table 26 Public Water Stations Supplying Ath-Thawrah City

Name of Water Station	Location of Water Station	The Entity Responsible for Managing the Station	# of Pumping Engines	Source of Energy	Productive Capacity m ³ /day	Current Productive Capacity m ³ /day	# of Workers in the Station	Covered Neighborhoods
Ath-Thawrah	Ath-Thawrah	MSD - PKK	12		2,500	1,500	30	The city's neighborhoods
Ayed Saghir	Ayed Saghir	MSD - PKK	4		700	500	3	Ayed Saghir's neighborhoods and 10% of the neighborhoods of Ar-Raqqa city

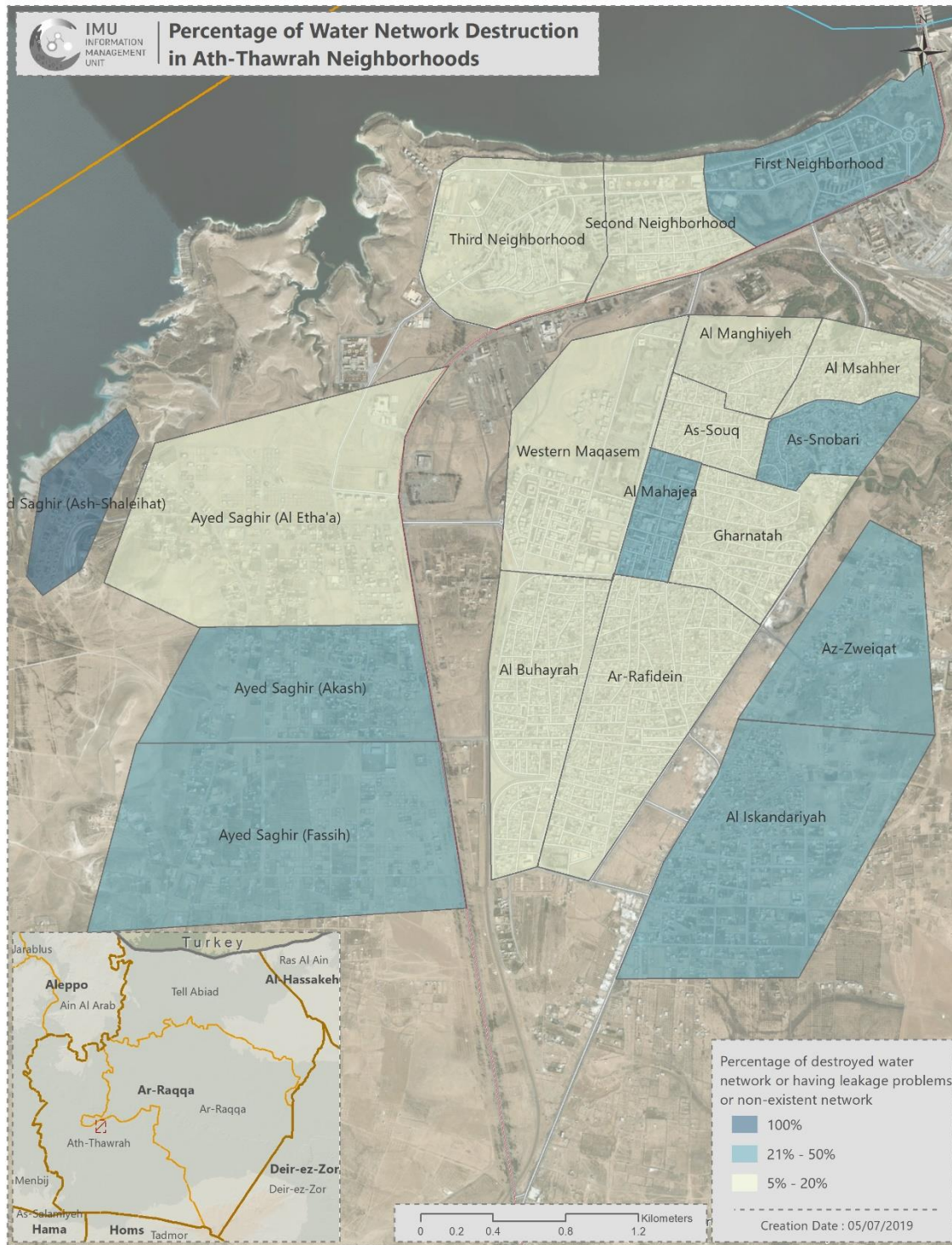
2. The Public Water Network in Ath-Thawrah City

The public water network suffered from malfunctions, by no more than 50%, causing water leaks through the cracks in all of the city's neighborhoods. There was no public water network in Ayed Saghir (Ash-Shaleihat) neighborhood, as the majority of its housings were under construction and not connected to the public network by any entity since the crisis began. Al Iskandariyah and Az-Zweiqat neighborhoods also expanded after the crisis and contained new remote buildings without access to the public water network. Moreover, the percentages of destruction in the water network were high in Ayed Saghir (Akash), Ayed Saghir (Ash-Shaleihat), Al Iskandariyah, Az-Zweiqat, As-Snobar, Al Mahajea and the First neighborhood and parts of their water network were completely worn-out and needed replacement. The water network in all of the city's neighborhood suffered from leakages in some parts and needed simple repairs and the Furat Progrant was periodically repairing some worn-out parts.

Figure 25 The Technical Status of the Water Network in Ath-Thawrah City at the Neighborhood Level



Map 14 Destruction in the Water Network in Ath-Thawrah City by Neighborhoods

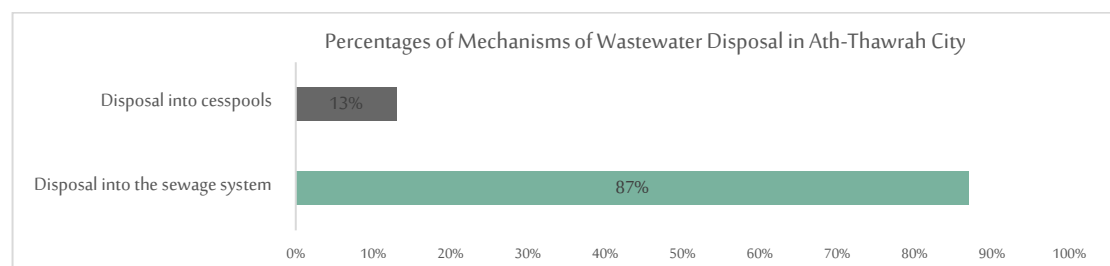


Seventh: The Sewage System in Ath-Thawrah City

1. Mechanisms of Wastewater Disposal in Ath-Thawrah City

No sewage systems were established in the four neighborhoods of Ayed Saghir (Al Etha'a, Akash, Fassih and Ash-Shaleihat), within which all housings disposed their wastewater into irregular cesspools. Further, Az-Zweiqat, Al Iskandariyah and Western Maqasem neighborhoods witnessed an urban expansion, while the new housings were not reached by the public sewage system and disposed their wastewater into irregular cesspools. It was mentioned that all cesspools were not covered with layers of sand or gravel to filter the wastewater and avoid groundwater contamination, hence the name "irregular cesspools". On the other hand, 87% of the city's housings disposed their wastewater into the public sewage system.

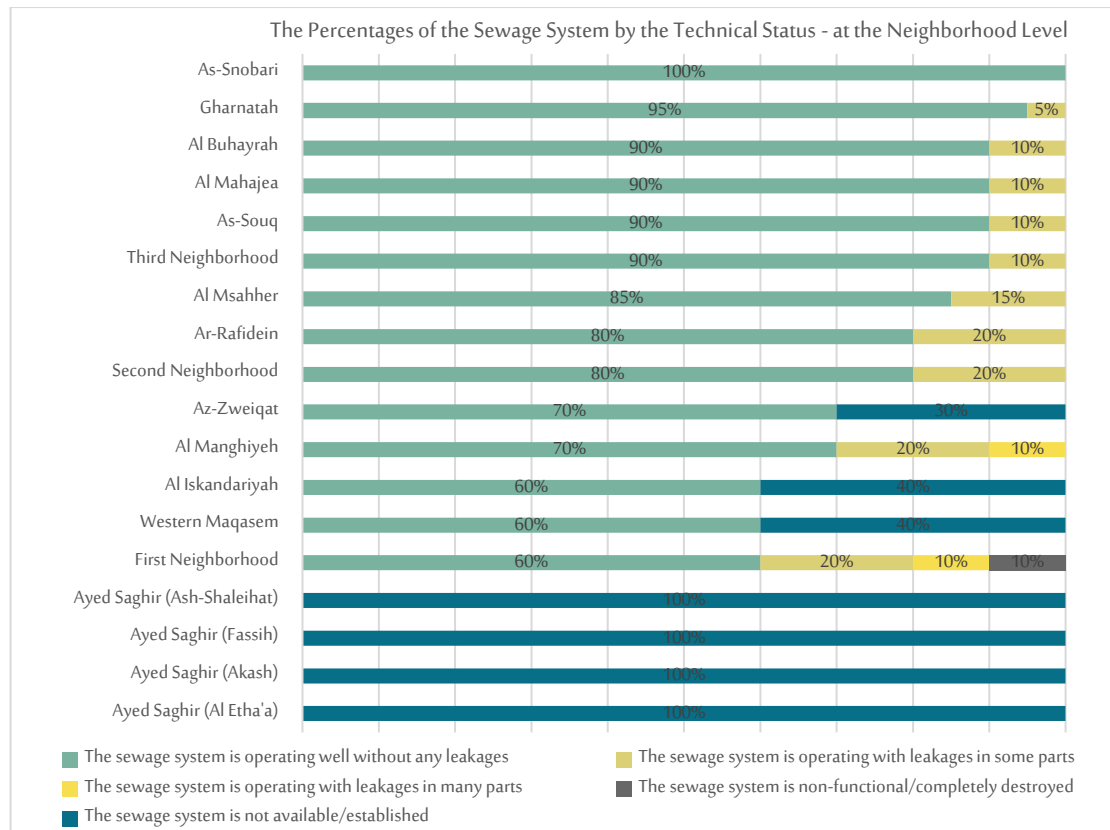
Figure 26 Mechanisms of Wastewater Disposal in Ath-Thawrah City



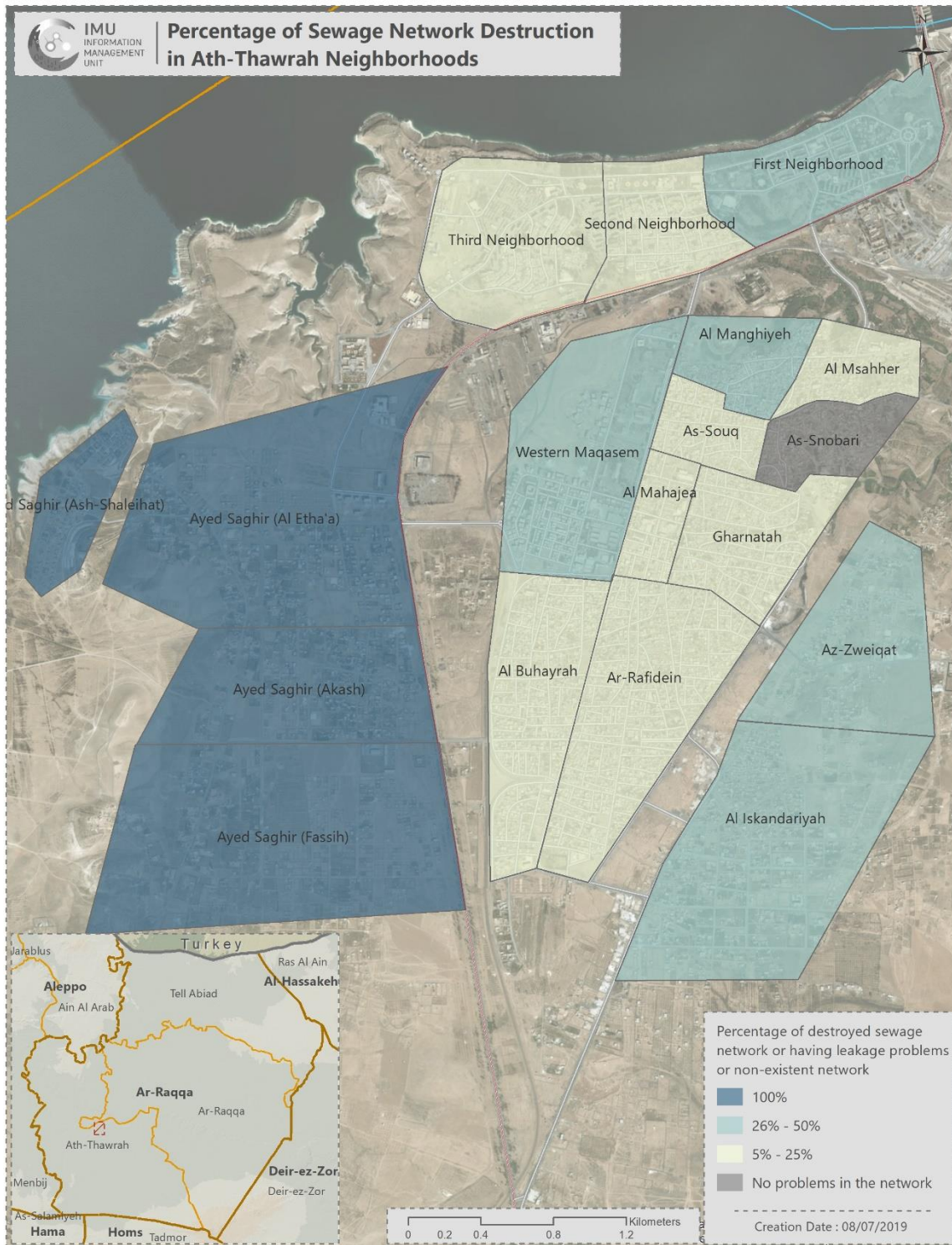
2. The Status of the Sewage System in Ath-Thawrah City

The study demonstrated that there was no leakage in the public sewage system in As-Snobarri neighborhood. The percentage of leakage in the sewage system of the First neighborhood was very high and 10% of its system was completely destroyed and needed replacement. 10% of the sewage system in each of Al Manghiyeh and the First neighborhoods suffered from a leakage in a large portion of its parts. There was no sewage system in any of the four neighborhoods of Ayed Saghir (Al Etha'a, Akash, Fassih and Ash-Shaleihat), in 40% of each of Western Maqasem and Al Iskandariyah neighborhoods and in 30% of Az-Zweiqat neighborhood.

Figure 27 The Technical Status of the Sewage System in Ath-Thawrah City at the Neighborhood Level



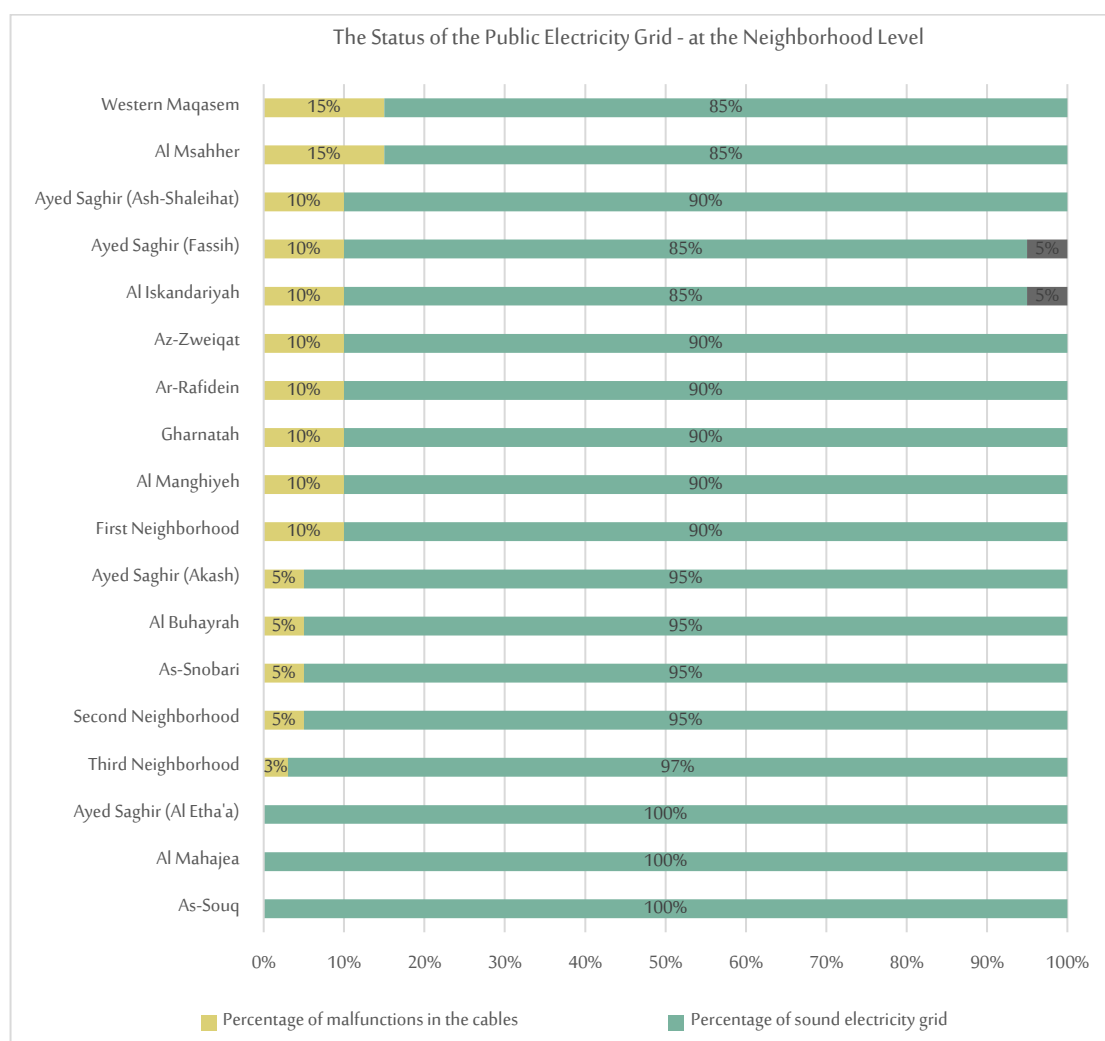
Map 15 Destruction in the Sewage System in Ath-Thawrah City at the Neighborhood Level



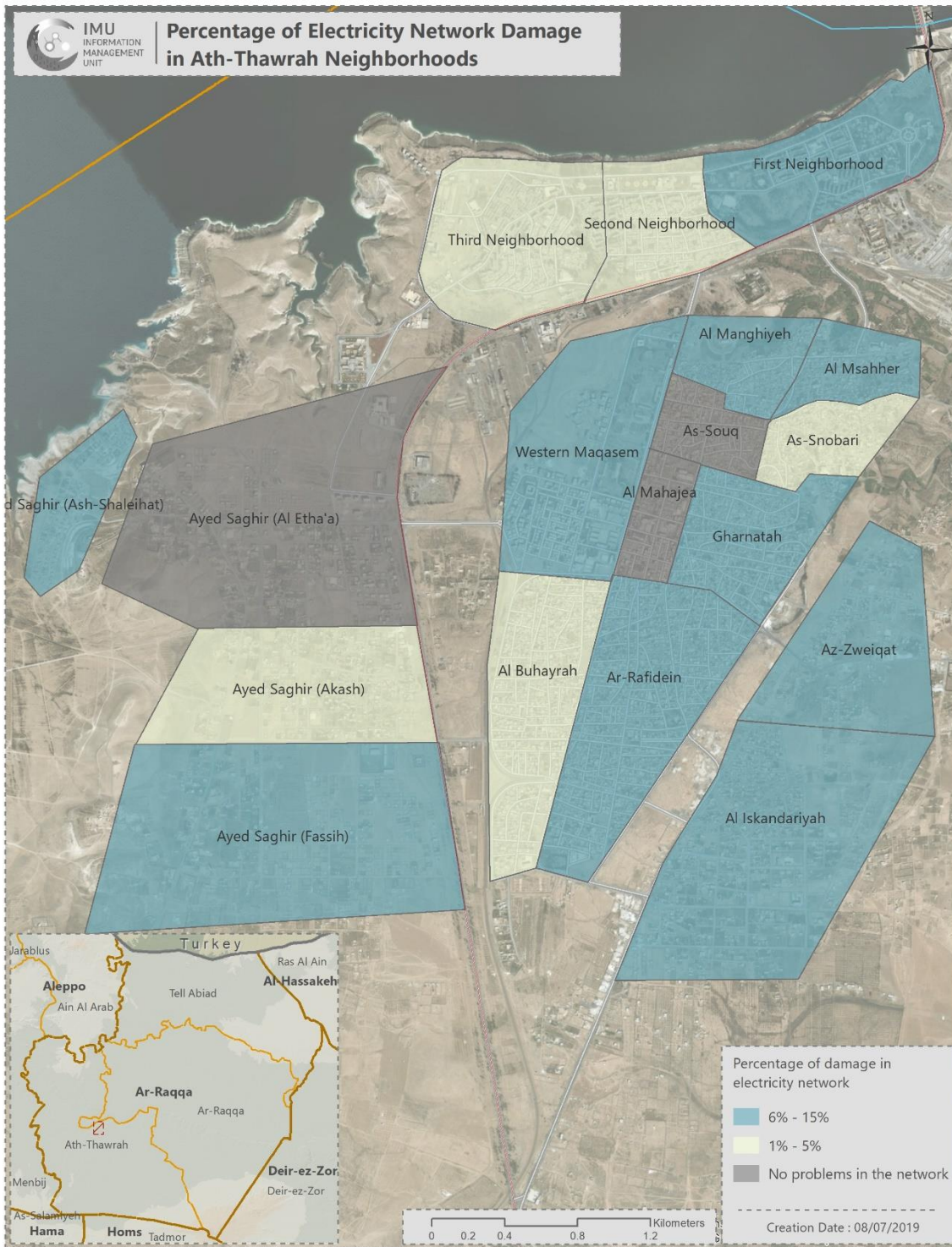
Eighth: Electricity in Ath-Thawrah City

Prior to the ongoing crisis, all neighborhoods of Ath-Thawrah city were covered with the public electricity grid, except for 5% of the housings in Ayed Saghir (Ash-Shaleihat) and Ayed Saghir (Fassih) neighborhoods. There was no destruction in the public grid within Ayed Saghir (Al Etha'a), Al Mahajea or As-Souq neighborhoods, whereas the highest percentages of destruction in the public electricity grid were found in Western Maqasem and Al Msahher neighborhoods. The Euphrates Dam supplied the city with electricity through the public grid. Further, there were no private generators (amperes) in Ath-Thawrah city as electricity was supplied through the public grid most of the time.

Figure 28 The Technical Status of the Electricity Grid in Ath-Thawrah City at the Neighborhood Level



Map 16 Destruction in the Electricity Grid in Ath-Thawrah City at the Neighborhood Level



Ath-Thawrah city had 30 functional electricity converters (boost converters to step up the voltage in the public electricity grid); nine of which were vertical pad-mounted with capacities ranging between 50-200 KVA and 21 of them were ground pad-mounted with capacities ranging between 400-630 KVA. All of the city's converters were functional and needed periodic maintenance only.

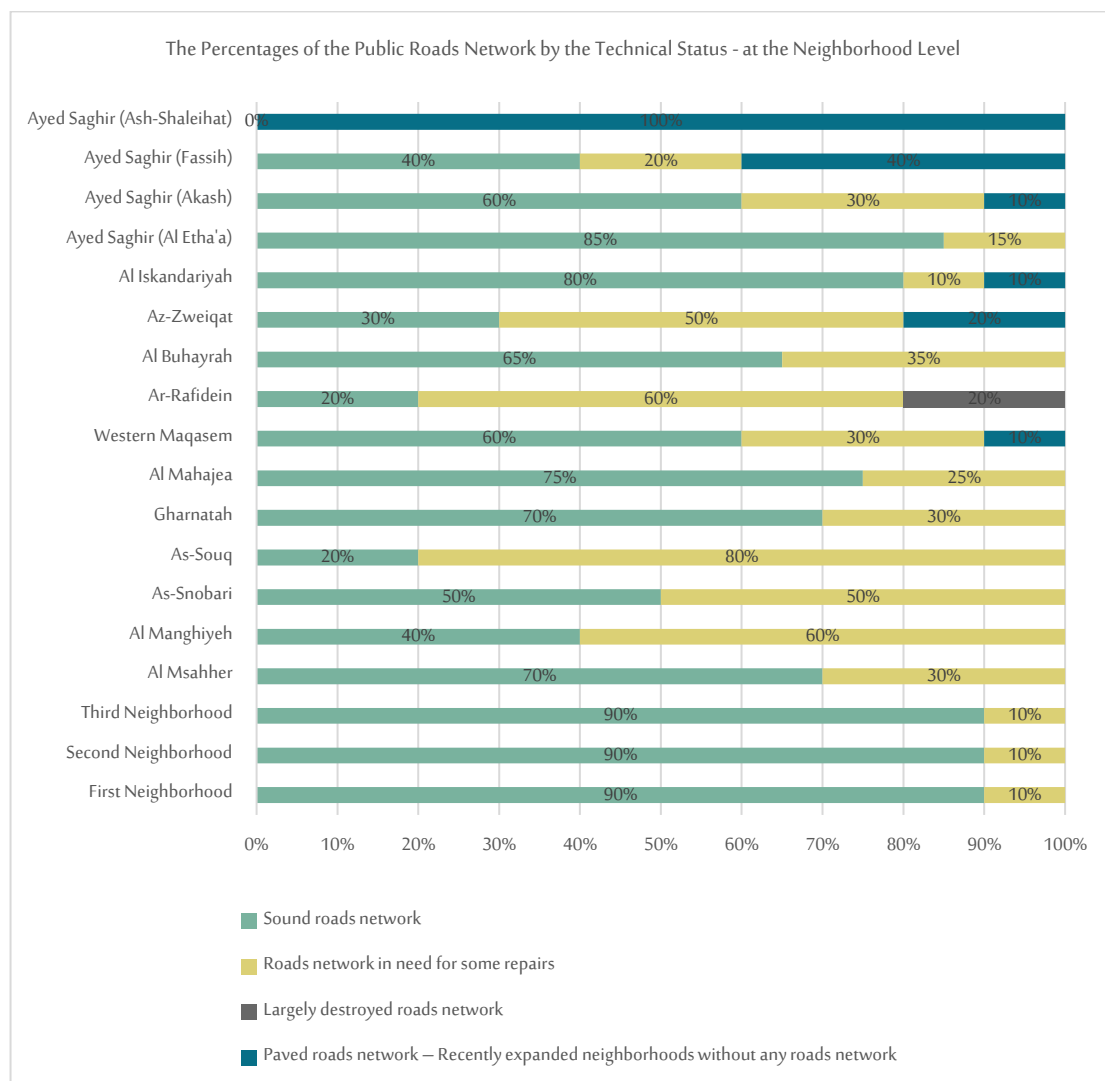
Table 27 Electricity Converters in Ath-Thawrah City

#	Name of Neighborhood	Type of Converter	Technical Status	Capacity	Needs
1	Al Iskandariyah	Vertical pad-mounted	Functional	kva 200	Periodic maintenance
2	Al Buhayrah	Ground pad-mounted	Functional	kva 630	Periodic maintenance
3		Ground pad-mounted	Functional	kva 630	Periodic maintenance
4	First Neighborhood	Ground pad-mounted	Functional	kva 630	Periodic maintenance
5	Third Neighborhood	Ground pad-mounted	Functional	kva 400	Periodic maintenance
6		Ground pad-mounted	Functional	kva 400	Periodic maintenance
7		Ground pad-mounted	Functional	kva 400	Periodic maintenance
8	Second Neighborhood	Ground pad-mounted	Functional	kva 630	Periodic maintenance
9		Ground pad-mounted	Functional	kva400	Periodic maintenance
10		Ground pad-mounted	Functional	kva 200	Periodic maintenance
11	Ar-Rafidein	Ground pad-mounted	Functional	kva 630	Periodic maintenance
12		Ground pad-mounted	Functional	kva 630	Periodic maintenance
13		Ground pad-mounted	Functional	kva 400	Periodic maintenance
14		Ground pad-mounted	Functional	kva 400	Periodic maintenance
15	Az-Zweiqat	Vertical pad-mounted	Functional	kva 50	Periodic maintenance
16		Vertical pad-mounted	Functional	kva 100	Periodic maintenance
17	As-Souq	Ground pad-mounted	Functional	kva 630	Periodic maintenance
18		Ground pad-mounted	Functional	kva 630	Periodic maintenance
19	Al Msahher	Vertical pad-mounted	Functional	kva 200	Periodic maintenance
20		Vertical pad-mounted	Functional	kva 100	Periodic maintenance
21	Western Maqasem	Ground pad-mounted	Functional	kva 400	Periodic maintenance
22		Ground pad-mounted	Functional	kva 400	Periodic maintenance
23		Ground pad-mounted	Functional	kva 630	Periodic maintenance
24	Al Manghiyeh	Ground pad-mounted	Functional	kva 630	Periodic maintenance
25	Al Mahajea	Ground pad-mounted	Functional	kva 400	Periodic maintenance
26	Ayed Saghir (Al Etha'a)	Vertical pad-mounted	Functional	kva 100	Periodic maintenance
27	Ayed Saghir (Ash-Shaleihat)	Vertical pad-mounted	Functional	kva 100	Periodic maintenance
28	Ayed Saghir (Fassih)	Vertical pad-mounted	Functional	kva 100	Periodic maintenance
29	Ayed Saghir (Akash)	Vertical pad-mounted	Functional	kva200	Periodic maintenance
30	Gharnatah – Assyrain	Ground pad-mounted	Functional	kva 630	Periodic maintenance

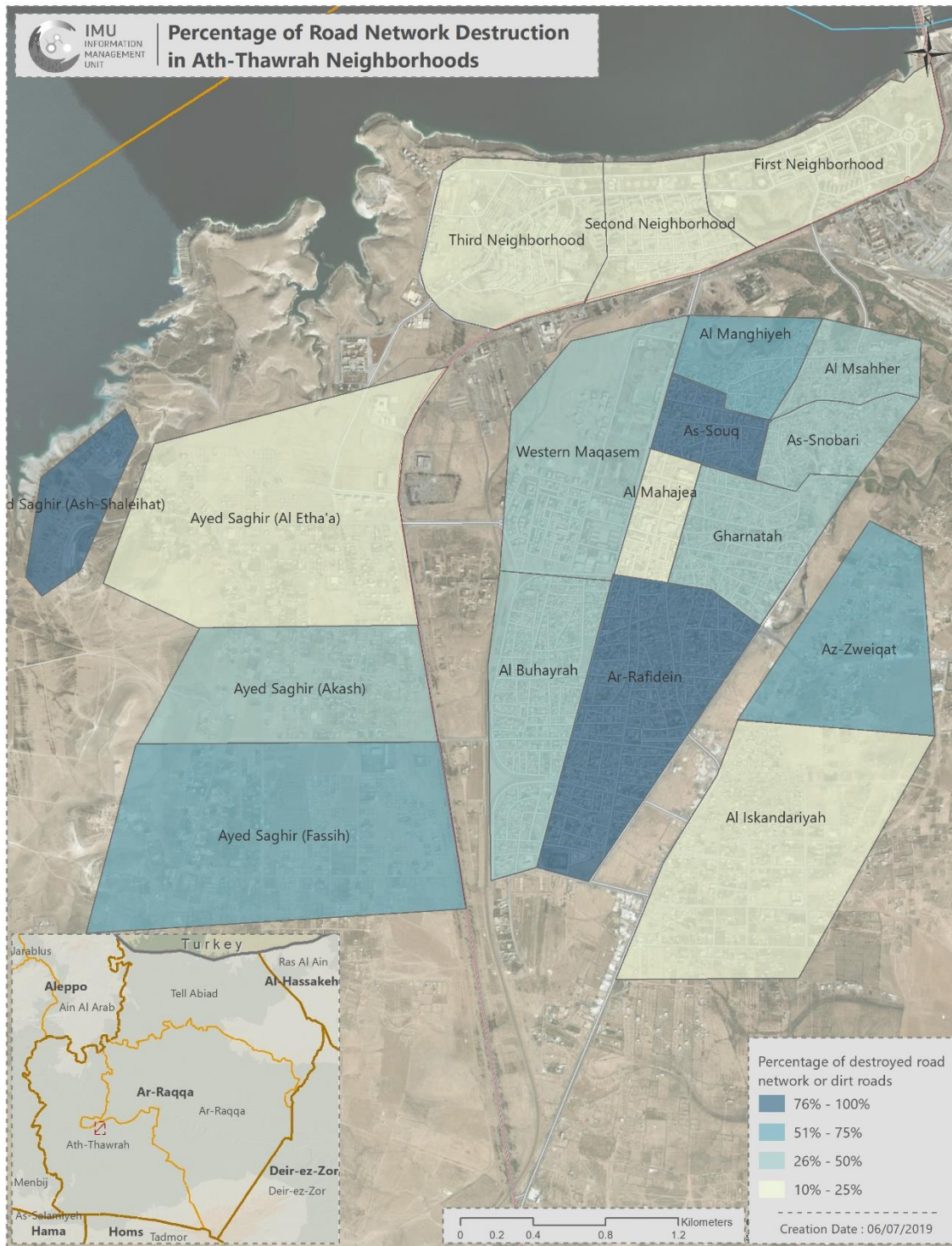
Ninth: Public Roads in Ath-Thawrah City

The study demonstrated that dirt unpaved roads formed 100% of roads in Ayed Saghir (Ash-Shaleihat) neighborhood, 40% of roads in Ayed Saghir (Fassih) neighborhood, 20% of roads in Az-Zweiqat neighborhood and 10% of roads in each of Ayed Saghir (Akash) and Al Iskandariyah neighborhoods. Further, 20% of roads in Ar-Rafidein neighborhood were completely destroyed and needed rehabilitation.

Figure 29 The Technical Status of the Roads Network in Ath-Thawrah City at the Neighborhood Level



Map 17 Destruction in the Roads Network in Ath-Thawrah City at the Neighborhood Level



SECTION VIII: TELL ABIAD CITY

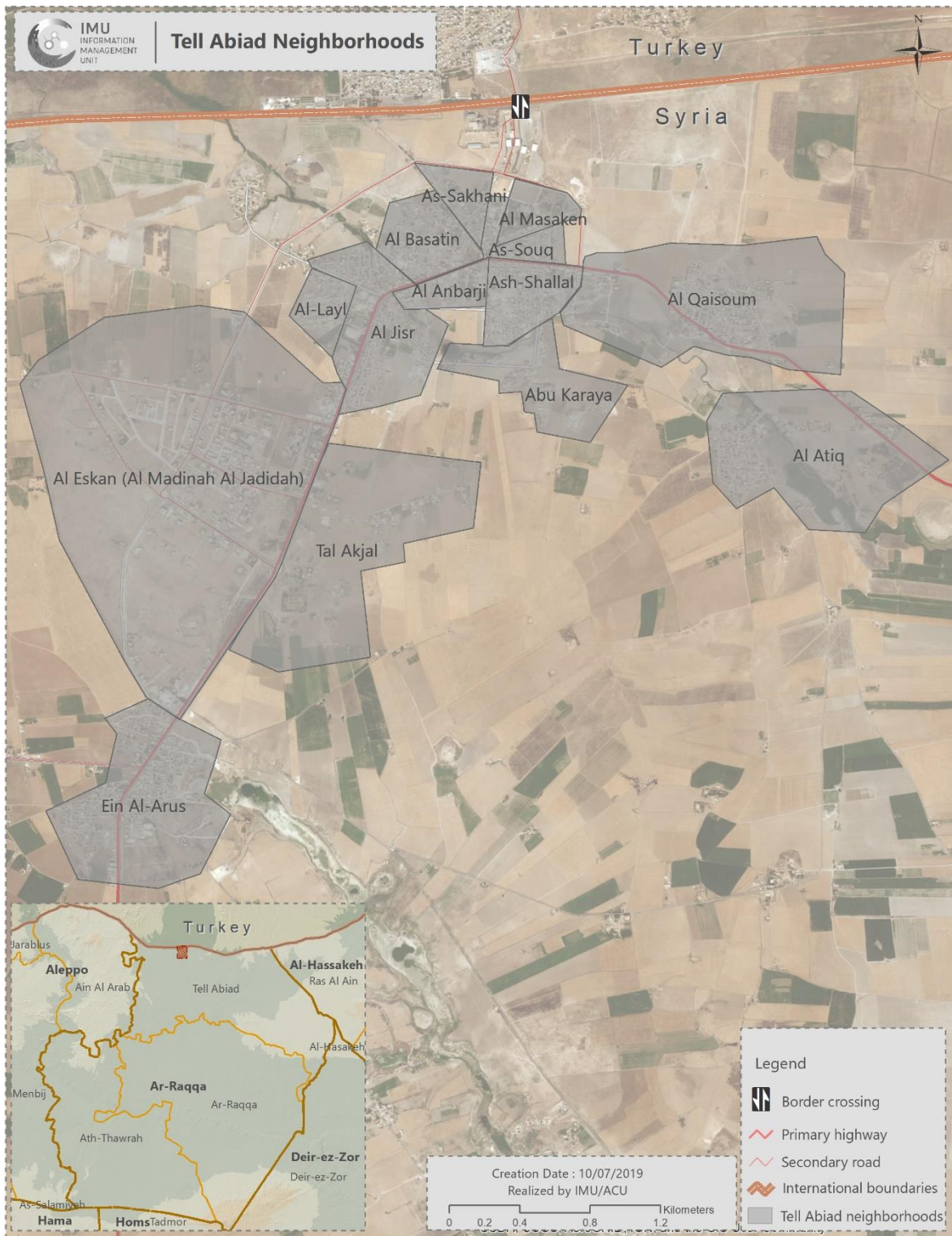
First: The Neighborhoods of Tell Abiad City

1. **As-Souq**: it is located in the middle of the city, around 1.5 km away from the Turkish-Syrian borders and between As-Sakhani, Al Masaken and Ash-Shallal neighborhoods. The bulk of its residents are Syrian Arabs. The living conditions of some of its residents are average and deteriorated for others. Its residents own their commercial and industrial shops and work in other professions, such public transportation drivers.
2. **Al Masaken**: it is located in the northeastern corner of the city, close to the Turkish borders, around 1 km away from the Turkish-Syrian borders and bordered by As-Souq neighborhood from the south. The bulk of its residents are Syrian Arabs. Its residents are from the middle class, some have their commercial shops, and some are employees at governmental departments formerly affiliated with the regime. Its housings are multi-storey buildings affiliated with various governmental departments (housing associations).
3. **Al Basatin**: it is located in the western corner of the city, between As-Sakhani, Al Jisir, Al Anbarji and As-Souq neighborhoods. It is considered as one of the ancient neighborhoods and its residents are Syrian Arabs, from Muslims and Christians, in addition to some Armenian families. The bulk of its residents own their commercial and industrial shops; 50% of the residents are well-off and own agricultural lands, whereas the other 50% suffer from deteriorated financial conditions.
4. **As-Sakhani**: it is located in the northwestern corner of the city, and around less than 1 km away from the Turkish-Syrian borders. The bulk of its residents are Syrian Arabs, mostly displaced to Turkey at the time of this report. The residents were former traders working on the bordering gate and some of them are big owners of agricultural lands.
5. **Ash-Shallal**: it is located between Al Masaken and Abu Karaya neighborhoods, in the southern part of the city and around 1.5 km away from the Turkish-Syrian borders. The bulk of its residents are Syrian Arabs, in addition to some Turkmen families. The living conditions of the bulk of the residents are deteriorated and most of them work as day-laborers.
6. **Al Anbarji**: it is located between Al Basatin, Ash-Shallal and Abu Karaya neighborhoods. The bulk of its residents are Syrian Arabs, from the middle class and own their commercial and industrial shops. Also there is Al Anbarji complex there, which contains a large number of commercial shops and apartments.
7. **Al Jisir**: it is located between Al Basatin, Al Anbarji, Al-Layl and Abu Karaya neighborhoods and around less than 2 km away from the Turkish-Syrian borders. Its residents are a mixture of Syrian Arabs and Kurds, while the Arabs form the largest percentage there. The living conditions of most of its residents are deteriorated and they mostly work as day-laborers. When the PKK seized the city, the Kurds joined the party as fighters and became rich.
8. **Al-Layl**: it located in the western part of the city and adjacent to Al Jisir neighborhood. Its residents are a mixture of Syrian Arabs and Kurds and their living conditions are deteriorated; the majority work as day-laborers and some are employees at former governmental departments, mostly teachers. The neighborhood is composed of random housings.
9. **Tell Abiad Al Sharqi Al Jadid (Al Qaisoum)**: it is located in the eastern part of the city and its northern side is open to the Turkish-Syrian borders and separated from them by agricultural lands. Its residents are Syrian

Arabs; most of them own agricultural lands and some own their commercial shops. The majority of the residents work in agriculture and their living conditions are average.

10. **Tell Abiad Sharqi (Al Atiq)**: it is located in the southeastern corner of the city. Its residents are Syrian Arabs and their living conditions are average; most of them own agricultural lands and some work as day-laborers.
11. **Abu Karaya**: it is a newly established small neighborhood located in the southern corner of the city. Its residents are Syrian Arabs and their living conditions are deteriorated; some of them own small agricultural lands and some work as day-laborers.
12. **Al Eskan (Al Madinah Al Jadidah)**: it is located on the south of the city center and stretches towards the center. The bulk of its residents are well-off Syrian Arabs, in addition to very few Syrian Kurds. When it controlled the city, the PKK also seized a large number of houses that belong to Arabs for its fighters to settle in.
13. **Tal Akjal**: it is located in the southern part of the city and stretches towards the east, 2.5 km away from the Turkish-Syrian borders overlooking Ein Al-Arus neighborhood from the south. Its residents are Syrian Arabs who own agricultural lands, and the majority of them work in agriculture.
14. **Ein Al-Arus**: it is located in the southern part of the city. The bulk of its residents are Syrian Arabs, in addition to some Syrian-Kurdish families and some Armenian families. The living conditions of most of the residents are deteriorated, and 10% of the families own their agricultural lands.

Map 18 The Neighborhoods of Tell Abiad City

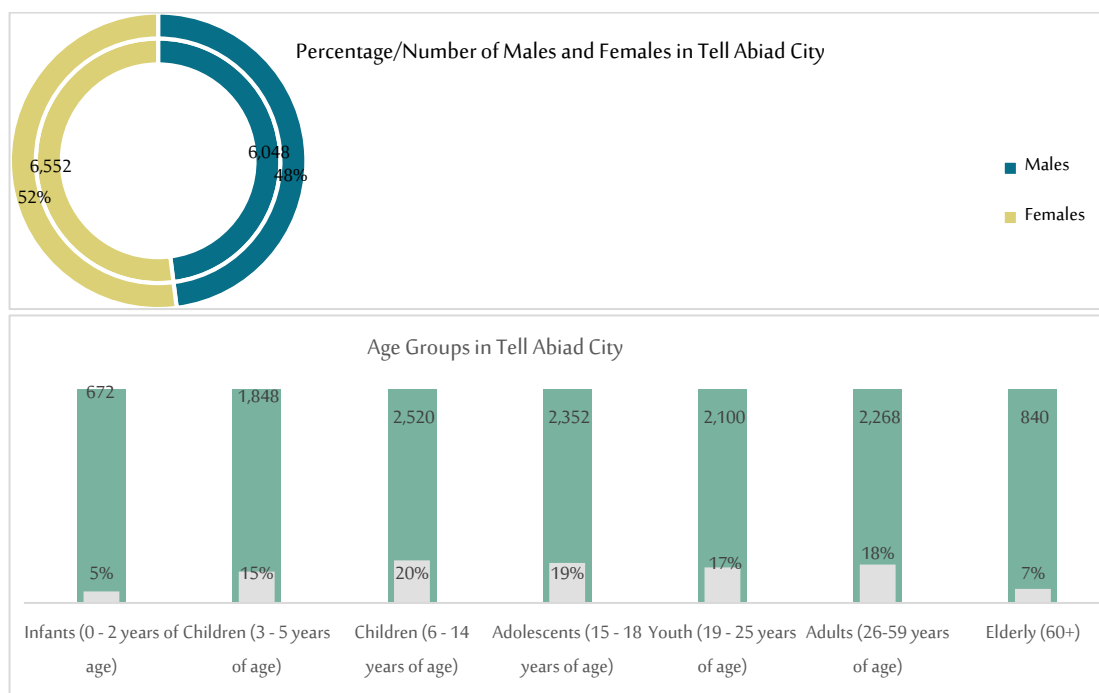


Second: The Demographic Composition of Tell Abiad City

1. The Population Census and Age Groups in Tell Abiad City

According to population statistics conducted by the IMU enumerators, of the ACU, Tell Abiad city had a population of 12,600 people in June 2019; of which females constituted 52% (6,552 females) and males constituted 48% (6,048 males). Information sources confirmed that over 1,500 fighters from the PKK were not included in those statistics.

Figure 30 The Population Census by Gender and Age Groups in Tell Abiad City



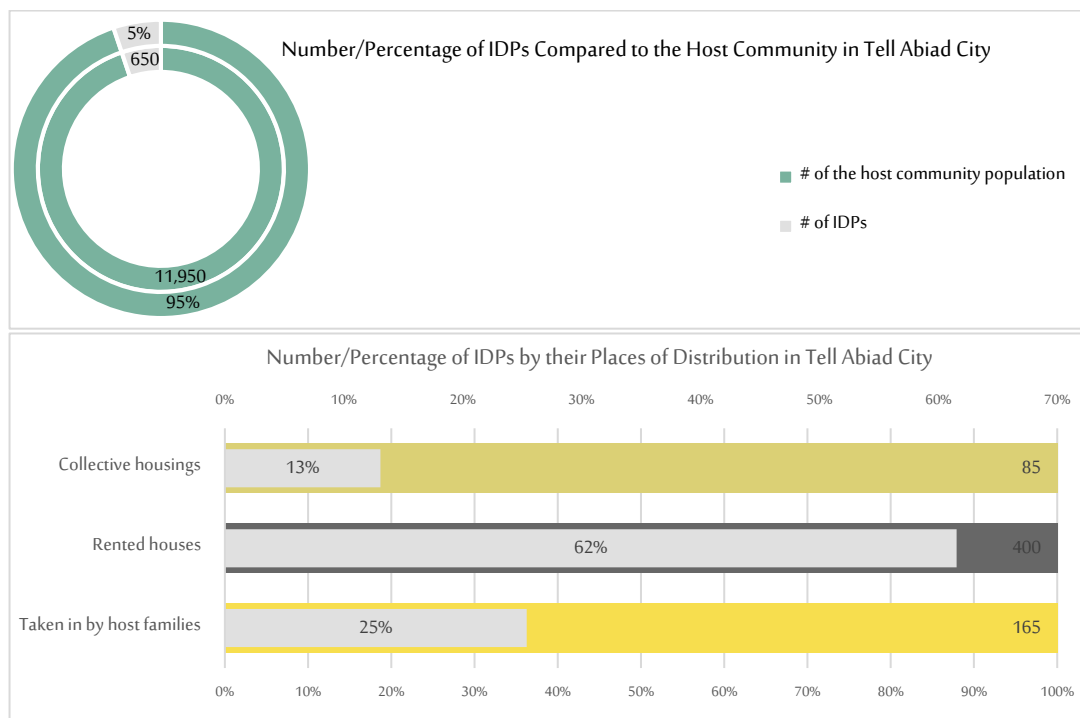
According to the population statistics issued by the regime in 2011, the population of Tell Abiad city was 17,636; which demonstrates, when compared to the statistics of the current population, that over 5,000 civilians were displaced from their houses. The information sources confirmed that there was a large number of empty houses whose inhabitants migrated abroad (mostly residing in Turkey). Additionally, the PKK fighters occupied tens of houses for their families to reside and transformed some houses near the Syrian-Turkish borders into military headquarters and dug tunnels underneath them.

The age group of infants constituted 5% (672 infants) of the city’s population, children between 3-5 years of age formed 15% (1,848 children) and children between 6-14 years of age – the primary school-aged children - formed 20% (2,520 children) of the city’s population. Adolescents between 15-18 years of age constituted 19% (2,352 adolescents), youth between 19-25 years of age formed 17% (2,100 young people), adults between 26-59 years of age formed 18% (2,268 adults) and elderly people over 60 years of age formed 7% (840 people) of the city’s population.

2. The IDPs and their Distribution Places in Tell Abiad City

In Tell Abiad city, there were 650 IDPs, constituting 5% of the city’s population, and 11,950 host community members, constituting 95% of the city’s population. It is reported that Tell Abiad used to contain a large number of IDPs when it became out of the regime control; however, this number declined with ISIL control over the city and battles between ISIL and the PKK forces.

Figure 31 IDPs and their Distribution Places in Tell Abiad City



Tell Abiad was one of the first cities that became out of the regime control for being lose to the bordering gate with Turkey. On 19 September 2012, the opposition forces controlled the strategically important border gate of Tell Abiad. On 1 November 2012, the regime forces targeted Akçakale, a Turkish city, with artillery, killing an entire family, which made the Turkish forces respond to the source of shelling, hence the withdrawal of the regime’s artillery regiment from Elali Bajliyah village to the 93 Brigade in Ein Issa sub-district and the opposition forces’ control over the entire Tell Abiad sub-district. Tell Abiad city became a destination for IDPs from all liberated cities and towns, especially in the eastern governorates; however, the numbers of IDPs decreased with ISIL’s control over the city and closure of the bordering gate with Turkey. After the battles between ISIL and the PKK’s forces, the bulk of IDPs and residents left the city and never came back.

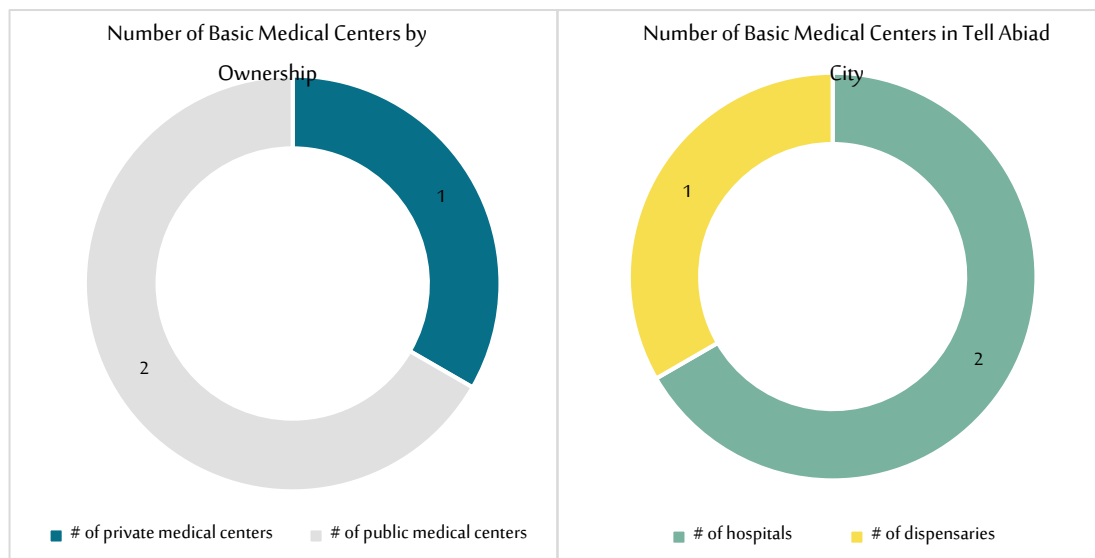
At the time of this report, Tell Abiad city contained 650 IDPs. 62% (400 IDPs) of the IDPs stayed in rented housings, 13% (85 IDPs) stayed in collective housings, and most importantly Tal Akjal primary school, and 25% (165 IDPs) were taken in by host families.

Third: The Health Sector in Tell Abiad City

1. Entities Supervising and Supporting the Medical Sector in Tell Abiad City

Tell Abiad city included three basic medical points; two hospitals and a dispensary, in addition to a number of private clinics and analysis laboratories that were not included in this report.

Figure 32 Numbers of Hospitals and Dispensaries in Tell Abiad City



Tell Abiad city contained two hospitals; Al-Hikma Hospital, which was privately owned, not supported by any entity and supervised by the owner, and Tell Abiad National Hospital, which was publicly owned, supervised by the PKK’s health office and supported by MSF, Handicap and Al Sawsan Association for Development & Health Care (local NGO). Further, Tell Abiad had Al-Hurriyah Dispensary, which was supported and supervised by Save the Children.

Table 28 Information of Medical Centers in Tell Abiad City

Name of Hospital/Dispensary	Supervising Entity	First Donating Entity	Second Donating Entity
Tell Abiad National Hospital	Health Office - PKK	Médecins Sans Frontières	Al Sawsan Association for Development & Health Care & Handicap International
Al-Hikma Hospital	Private owner	None	None
Al-Hurriyah Dispensary	Save the Children	Save the Children	

2. Medical Cadres and Specializations in Tell Abiad City

Hospitals and dispensaries in Tell Abiad city contained 25 doctors; 2 females and 23 males. Those numbers do not reflect the actual condition of medical cadres there, as a part of the doctors work in more than one hospital in the city and might be working in other hospitals in neighboring cities, also a large number of doctors work in their private clinics, which were not mentioned in this report. The medical specializations in Tell Abiad city basic medical centers included general surgery, pediatrics, internal medicine, gynecology, nephrology and orthopedics. There were 29 male nurses and 31 female nurses in the city's hospitals and dispensaries, in addition to 9 technicians from various specializations, 11 administrators and 14 cleaning/maintenance staff.

Table 29 Information of Medical Cadres in Tell Abiad City

Name of Hospital/Dispensary	Total # of Physicians	Medical Specialties	# of Female Physicians	# of Male Nurses	# of Female Nurses	# of Technicians	# of Administrators	# of Cleaning/Maintenance Staff
Tell Abiad National Hospital	16	General surgery Pediatrics Internal medicine Gynecology Nephrology Orthopedics	0	12	13	6	7	10
Al-Hikma Hospital	7	Gynecology Pediatrics General surgery Internal medicine	1	13	16	2	2	3
Al-Hurriyah Dispensary	2	Gynecology Pediatrics	1	4	2	1	2	1
Total	25		2	29	31	9	11	14

3. Equipment of Medical Centers in Tell Abiad City

The hospitals of Tell Abiad city contained 6 equipped operation rooms and 100 patient beds, yet none of them included a CT scan machine, also Tell Abiad National Hospital was the only equipped hospital for dialysis; even though it suffered from scarcity of dialysis items and requirements. All hospitals and dispensaries had their generators, which needed 15-17 liters of diesel per working hour, whereas Al-Hurriyah Dispensary contained a small generator that needed 5 liters of diesel per working hour. The information sources confirmed that electricity became available through the public electricity grid for most for the day, hence the generators were operated during power disruptions only.

Table 30 Equipment of Medical Centers in Tell Abiad City

Name of Hospital/Dispensary	# of Equipped Operation Rooms	# of Patient Beds	Is there a CT Scan?	Is the Hospital Equipped for Dialysis?	# of Generators?	Quantity of Diesel Needed for the Generators per Working Hour
Tell Abiad National Hospital	4	80	No	Yes	1	15
Al-Hikma Hospital	2	20	No	No	1	17
Al-Hurriyah Dispensary	-	-	No	No	1	5
Total	6	100	0	0	3	-

4. Number of Beneficiaries of Medical Services in Tell Abiad City

During June 2019, 5,805 patients were admitted to Tell Abiad city hospitals and dispensaries and 195 surgeries were conducted. The bulk of the surgeries was conducted in Tell Abiad National Hospital which provided free services; however, the patients might wait for more than one month for their turns, which forced some patients to resort to the private hospital to conduct their emergency surgeries. Al-Hikma hospital provided remunerated services. Al-Hurriyah dispensary provided free services, which were limited to medical examinations and dispensation of some medications only.

Table 31 Number of Beneficiaries of Medical Centers in Tell Abiad City

Name of Hospital/Dispensary	# of Patients during a One-month Period	# of Operations during a One-month Period	Cases of Free Service
Tell Abiad National Hospital	3,460	150	All cases are free of charge
Al-Hikma Hospital	370	45	All cases are paid for by patients
Al-Hurriyah Dispensary	1,975	-	All cases are free of charge
Total	5,805	195	-

5. The Needs of the Medical Centers in Tell Abiad City

Tell Abiad National Hospital needed a CT scan machine, intensive care equipment, dialysis requirements and medications, the privately-owned Al-Hikma hospital needed a CT scan machine, and Al-Hurriyah dispensary needed laboratory equipment and medications.

Table 32 The Needs of the Medical Centers in Tell Abiad City

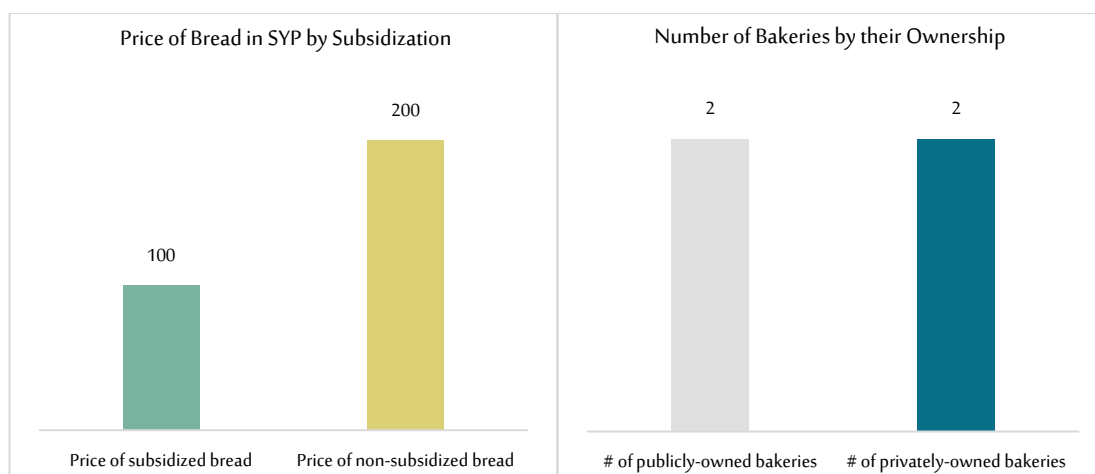
Name of Hospital/Dispensary	Needs
Tell Abiad National Hospital	CT scan machine – Intensive care equipment – Dialysis requirements – Medications
Al-Hikma Hospital	CT scan machine
Al-Hurriyah Dispensary	Laboratory – Medications

Fourth: Bakeries in Tell Abiad City

1. Number of Bakeries and Price of Bread in Tell Abiad City

Tell Abiad city had four bakeries; two of which were privately-owned and the other two were publicly-owned. Only one bakery was non-functional and currently closed as its owners travelled outside Syria and it was not supported by any entity. All functional bakeries were producing subsidized bread which cost 100 SYP (an equivalent to USD 0.16) per 8 loaves (i.e. 1 kg). Al-Baladiya and Al Eskan bakeries were supervised by the PKK's Committee of Bakeries and their bread was distributed through the neighborhoods' representatives (or what is known as communes), whereas Al-'Alo bakery was supervised by its owner. All three functional bakeries were supported by CHF in return of selling subsidized bread. The markets of Tell Abiad city sold non-subsidized bread (Siyahi bread), which was produced outside the city and from a mix of durum and soft wheat flour, while adding a higher percentage of the latter; "bread produced from this flour is whiter, and it is known as 00 white flour". Al-Siyahi bread is less satiating and more expensive when compared to subsidized bread; cost of Siyahi bread "non-subsidized bread" was 200 SYP (an equivalent to USD 0.33) per 1 kg. Information sources confirmed that most of the Siyahi bread was produced by bakeries in Ain Al Arab city (Kobane) which is affiliated with Aleppo northeastern countryside

Figure 33 Number of Bakeries and Price of Bread in Tell Abiad City



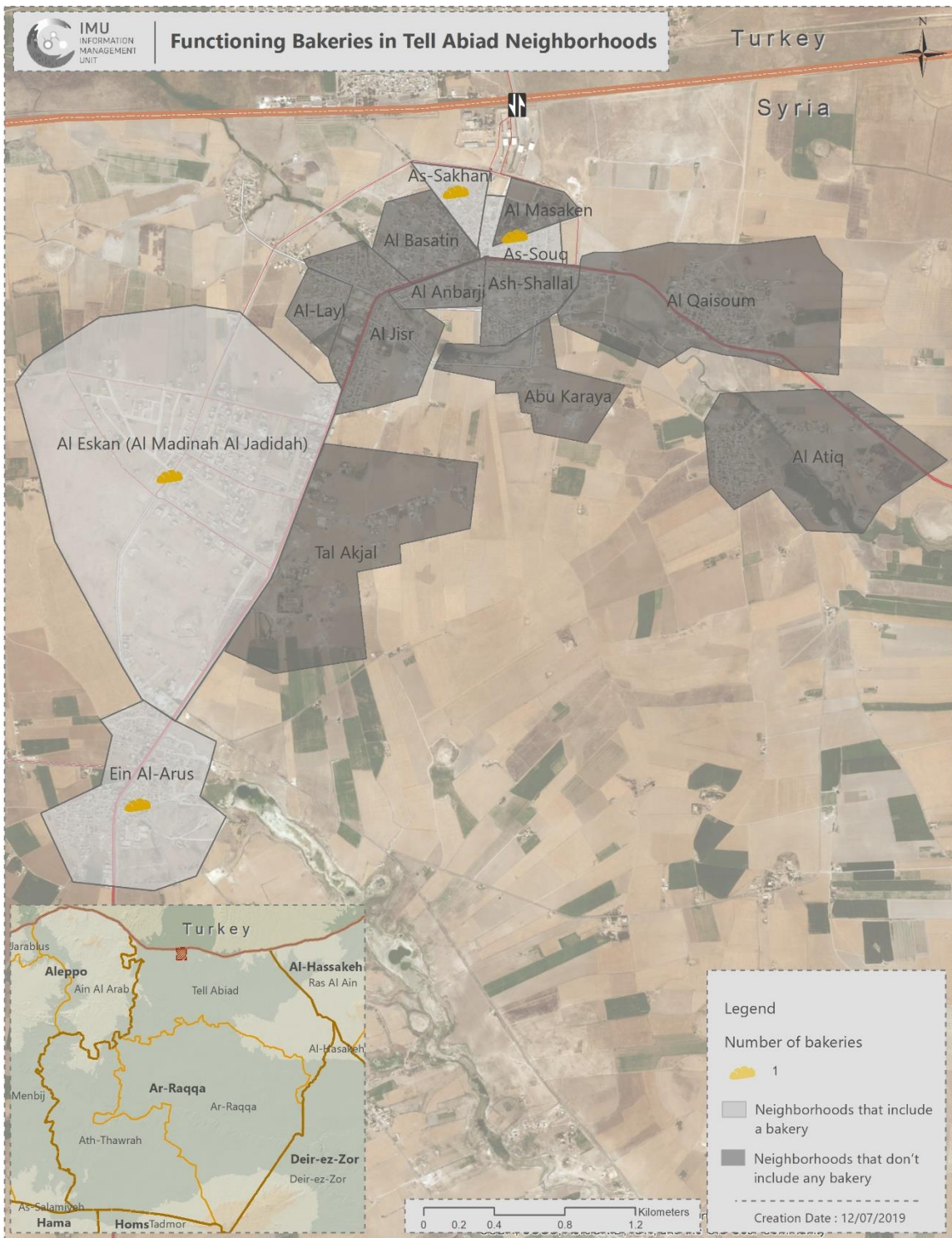
2. Entities Supervising the Bakeries and their Cadres in Tell Abiad City

The publicly-owned Al-Baladiya and Al Eskan bakeries were supervised by the PKK’s Committee of Bakeries, whereas Al-'Alo bakery was supervised by its owners. All the bakeries were supported with fuel and flour by the CHF at reduced prices in return of producing the received quantity of flour and selling it at a reduced price (100 SYP per 8 loaves).

Table 33 Bakeries in Tell Abiad City and Entities Supervising them

Name of Bakery	Location/Neighborhood	Owner/Supervising Entity	Subsidizing Entity	Type of Subsidization	# of Administrators	# of Technicians	# of Workers
Al-Baladiya	As-Souq	Public – Committee of Bakeries	CHF - Committee of Bakeries	All needs	1	2	10
Al Eskan	Al Eskan	Public – Committee of Bakeries	CHF - Committee of Bakeries	All needs	2	2	10
Al-'Alo	As-Sakhani	Private owner	CHF - Committee of Bakeries	Fuel - Flour	1	1	5
Al-Balo	Ein Al-Arus	Private owner	Non-functional				
Total	-	-			4	4	25

Map 19 Number of Functional Bakeries in Tell Abiad City by Neighborhoods



3. The Bakery’s Production Capacity and the Bread’s Production Cost in Tell Abiad City

The actual productive capacity of bakeries in Tell Abiad city ranged between 3-10 tons per shift. The cost of producing 1 ton of bread (without the flour’s cost) in subsidized bakeries was 25,000 SYP (an equivalent to USD 42). All bakeries in Tell Abiad city produced subsidized bread. Al-Baladiya bakery needed periodic maintenance, whereas Al Eskan and Al-'Alo bakeries needed replacement of the diesel injection pump and fermentation conveyor belts.

Table 34 The Bakeries’ Production Capacity and the Bread’s Production Cost in Tell Abiad City

Name of Bakery	Actual Productive Capacity of the Bakery/ton	Current Quantity of Production	# of Production Lines in the Bakery	Cost of Producing 1 ton of Bread/USD	Where does the Bakery get its Operational Expenses from?	Where does the Bakery get its Flour from?	Beneficiaries of Bread	Maintenance Work
Al-Baladiya	25	10	5	25,000	Committee of Bakeries	Committee of Mills	Residents of the city and neighboring villages	Periodic maintenance
Al Eskan	15	6	3	25,000	Committee of Bakeries	Committee of Mills	Residents of the city and neighboring villages	Diesel injection pump - Belts
Al-'Alo	8	3	2	25,000	From selling bread	Committee of Mills	Residents of the city and neighboring villages	Diesel injection pump - Belts
Total	48	19	10					

The actual productive capacity of a bakery means the quantity of bread produced per shift. The bakery’s capacity varies by its size and equipment and depends on multiple standards and most importantly the number of production lines. The more the production lines, the higher the bakery’s capacity. Similarly, the larger the fermentation conveyor belts and the oven, the higher the bakery’s capacity.

The actual productive capacity of Al-Baladiya bakery was 25 tons of bread per shift; this bakery was publicly-owned, had five production lines and produced 10 tons of bread daily at the time of preparing this report. The actual productive capacity of Al Eskan bakery was 15 tons of bread per shift; this bakery had three production lines and produced 6 tons of bread daily at the time of preparing this report.

The cost of producing 1 ton of bread (without the flour’s cost) was 25,000 SYP (an equivalent to USD 42) in all bakeries in Tell Abiad city as the CHF subsidized them with needed fuel and flour, whereas the other expenses (yeast, salt, water, wages of workers and maintenance expenses) were secured from selling bread.

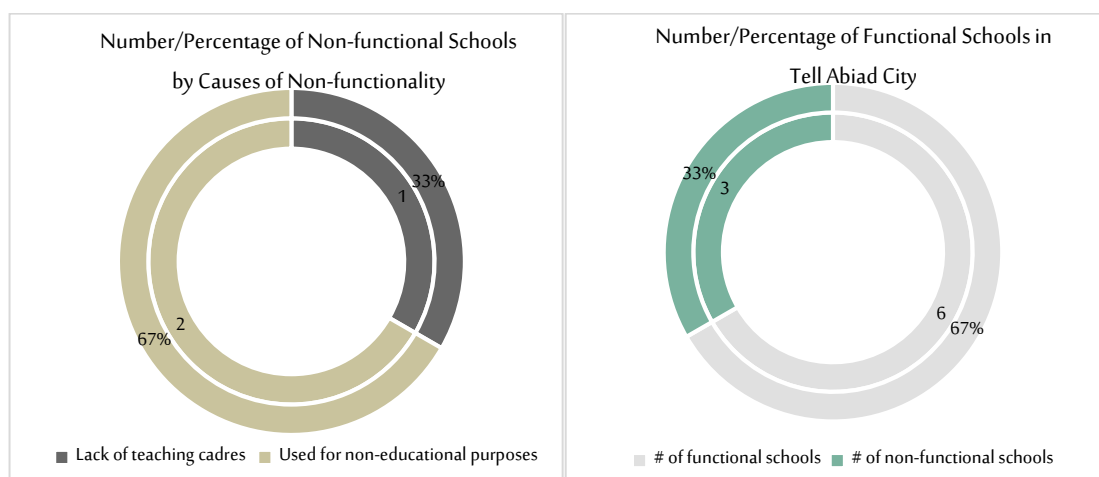
According to the MPI³ issued by the IMU, the market price of fuel in Ar-Raqqa governorate ranged between 175-387 SYP (an equivalent to USD 0.29-0.77) per 1 liter, and the market price of flour was 265 SYP (an equivalent to USD 0.44) per 1 kg. Information sources confirmed that 1 ton of flour cost between USD 345-400 in the market.

Fifth: Schools in Tell Abiad City

1. Information on Schools in Tell Abiad City

Tell Abiad city had nine schools; six functional and three non-functional schools. Four of the functional schools were gender-mixed, one for girls and one for boys. One of the non-functional schools stopped working due to lack of teaching cadres and two of the schools stopped working because they were used for non-educational purposes.

Figure 34 Numbers of Schools in Tell Abiad City and Causes of their Non-functionality

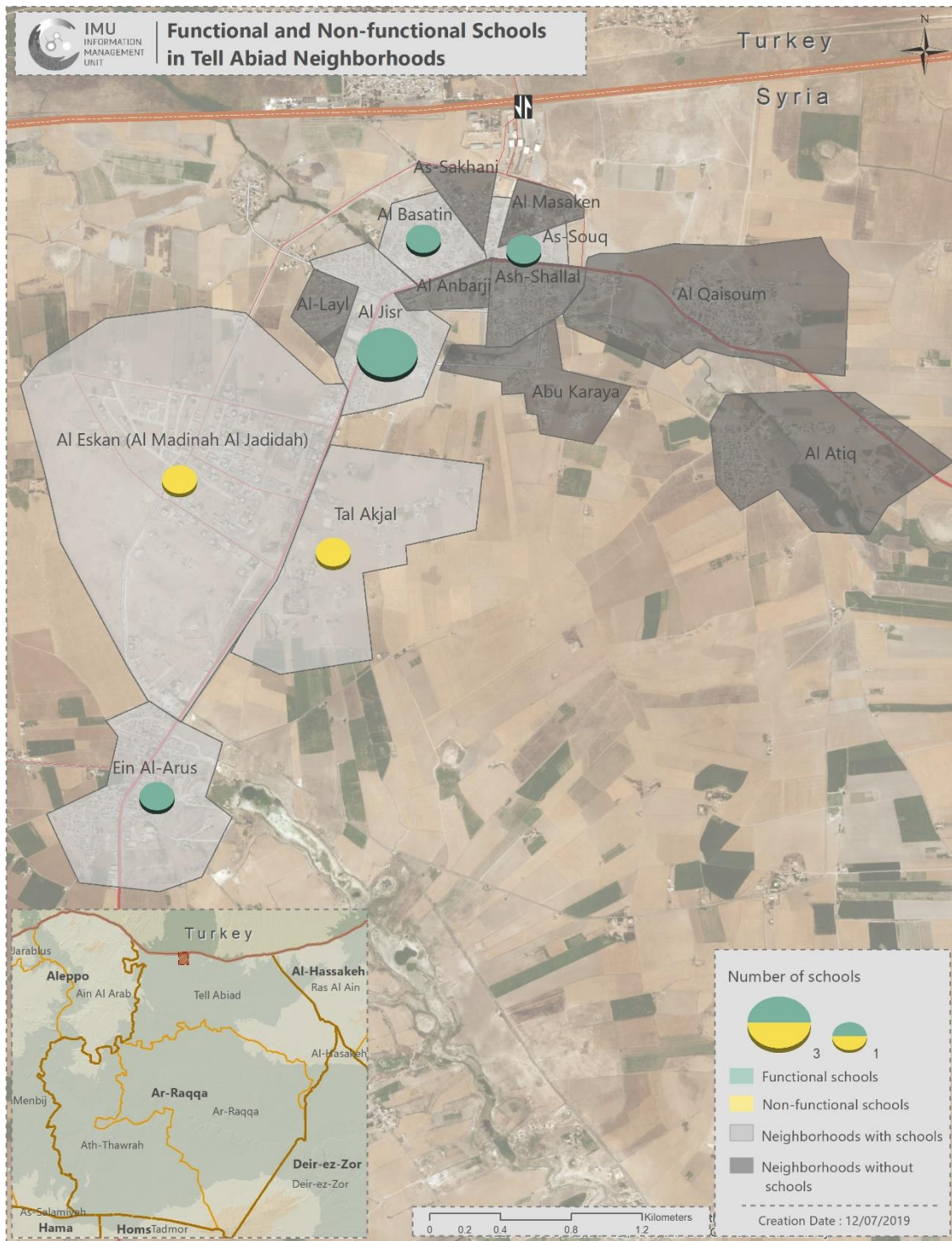


There were no schools within eight of Tell Abiad city's neighborhoods (Al-Layl, Al Anbarji, Ash-Shallal, Abu Karaya, Al Masaken, As-Sakhani, Al Qaisoum and Al Atiq), whereas there were no functional schools within two other neighborhoods (Tal Akjal and Al Easkan). Tal Akjal primary school stopped working for it was used as an IDP shelter, Al-Bassel upper-secondary school stopped working due to lack of teaching cadres and the Specialization School was closed because it was used as a military headquarter by the controlling PKK forces. The total accommodation capacities of functional schools in the city were 3,720 students only, whereas statistics conducted by the IMU's enumerators indicated that there were 4,872 school-aged children in the city. It was reported that there were no upper-secondary schools in the city, which is considered as the center of Tell Abiad sub-district. All schools there had one shift only.

Table 35 General Information on Schools in Tell Abiad City

#	Name of School	Neighborhood	Operational Status	Condition of School Building	Accommodation Capacity (per Shift)	Gender-mixed?	# of Shifts	Educational Stages Taught
1	Abu Ubaidah ibn Al-Jarrah Primary School	As-Souq	Functional	Not destroyed	250	Gender-mixed	One shift	1-6
2	Nusaybah Lower-Secondary School	Al Jisir	Functional	Not destroyed	700	For girls	One shift	6-9
3	Zaynab bint Al-Hussein Primary School	Al Basatin	Functional	Not destroyed	900	Gender-mixed	One shift	1-5
4	Salah Al-Din Al-Sabbagh Primary School	Al Jisir	Functional	Not destroyed	675	Gender-mixed	One shift	1-5
5	Al-Bassel Lower Secondary School	Al Jisir	Functional	Not destroyed	495	For boys	One shift	5-9
6	Ein Al-Arus Primary School 2	Ein Al-Arus	Functional	Not destroyed	700	Gender-mixed	One shift	1-5
7	Tal Akjal Primary School	Tal Akjal	Non-functional	Not destroyed	Used as a shelter			
8	Al-Bassel Upper Secondary School	Al Eskan	Non-functional	Not destroyed	Lack of teaching cadre			
9	Specialization School	Al Eskan	Non-functional	Not destroyed	Military headquarter for the PKK			
Total					3,720		-	

Map 20 Numbers of Functional and Non-Functional Schools in Tell Abiad City by Neighborhoods



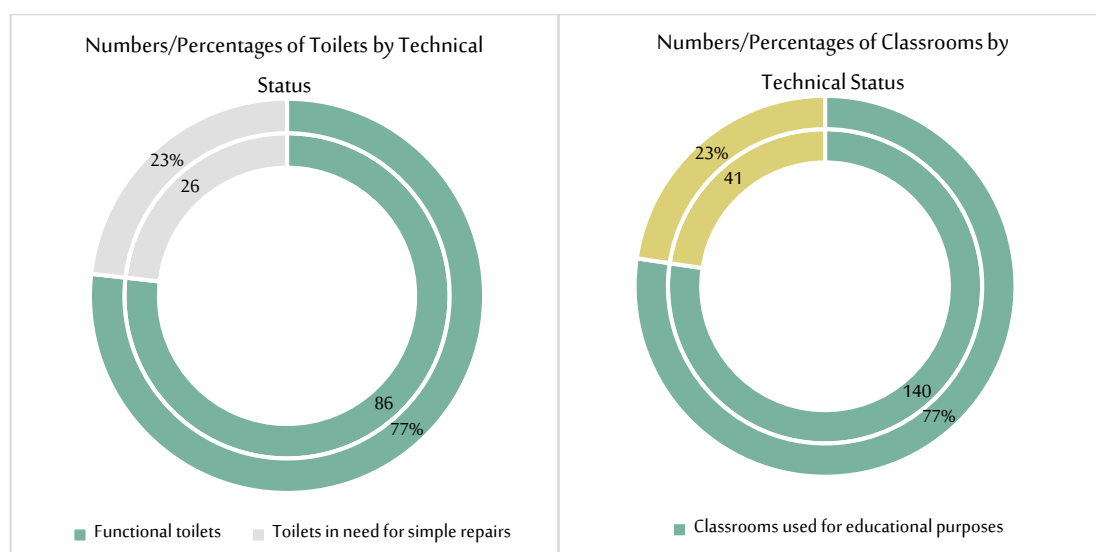
2. The Status of Schools in Tell Abiad City

77% (140 classrooms) of total rooms in functional schools in Tell Abiad city were used for educational purposes, whereas 23% (41 classrooms) needed repairs.

77% (86 toilets) of total toilets in functional schools in the city were functional, 23% (26 toilets) needed simple repairs to become usable, whereas there were no completely destroyed schools that needed full rehabilitation.

It was reported that the three non-functional schools in the city were not destroyed but needed school furniture and maintenance for being used for non-educational purposes.

Figure 35 Technical Status of Classrooms and Toilets in Tell Abiad City



26 windows in the city’s functional schools needed repairs and 10 windows were irreparable and needed replacement, whereas 11 doors needed repairs; those numbers include all windows and doors in functional schools.

Additionally, there were no desks that needed repairs or replacement in the functional schools. The information sources confirmed that all student desks were good; however, all schools suffered from a lack of student desks and needed extra desks.

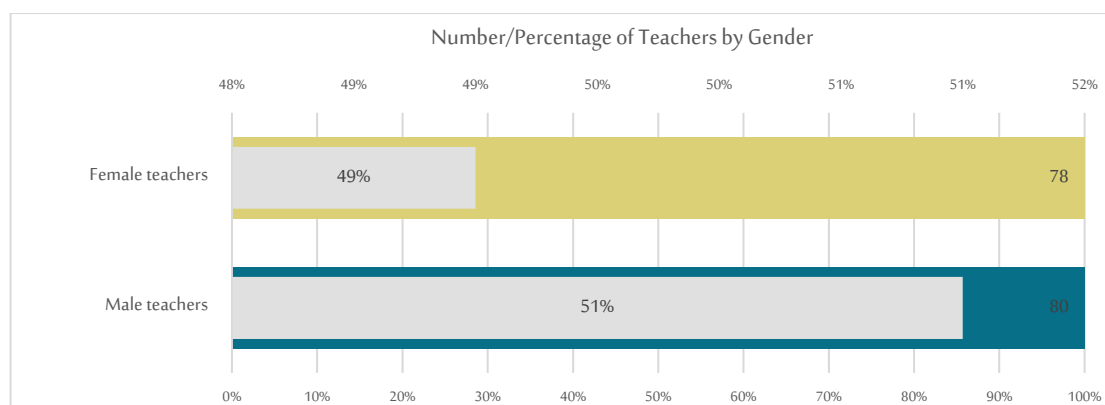
Table 36 Information on the Technical Status of School Facilities in Tell Abiad City

#	Name of School	# of Rooms in Need for Repairs	# of Windows in Need for Replacement	# of Windows in Need for Repairs	# of Doors in Need for Repairs	# of Doors in Need for Replacement	# of Functional Toilets	# of Toilets in Need for Simple Repairs	# of Toilets in Need for Full Rehabilitation	# of Desks in Need for Repairs	# of Desks in Need for Replacement
1	Abu Ubaidah ibn Al-Jarrah Primary School	0	0	0	0	0	5	0	0	0	0
2	Nusaybah Lower-Secondary School	18	0	0	0	0	16	0	0	0	0
3	Zaynab bint Al-Hussein Primary School	11	10	20	0	0	24	0	0	0	0
4	Salah Al-Din Al-Sabbagh Primary School	3	0	6	0	0	6	6	0	0	0
5	Al-Bassel Lower Secondary School	4	0	0	11	0	4	8	0	0	0
6	Ein Al-Arus Primary School 2	5	0	0	0	0	0	12	0	0	0
Total		41	10	26	11		86	26	0	0	0

3. Teaching Cadres in Tell Abiad City

The schools in Tell Abiad city included 158 teachers; 51% (80 teachers) of which were males and 49% (78 teachers) were females. All teachers in the city’s schools were irregular and practicing this profession due to lack of teaching cadres, and the information sources confirmed that all teachers were displaced from the city when it became out of the regime control. All teachers there were remunerated by the controlling parties.

Figure 36 Number/Percentage of Teachers by Gender in Tell Abiad City



Regular teachers are those who have already been in the teaching profession before the ongoing crisis, as assigned by the Syrian Directorate of Education under permanent contracts. After graduating from college or intermediate institute, they undergo a recruitment competition held by the Ministry of Education, and those who pass the competition sign permanent job contracts with the Ministry and are assigned as per their various specialisations.

The results showed that Tell Abiad city had no regular teachers because a part of the teachers was displaced from the city and the other part refused to work with the current controlling party. All teachers in the city's schools were irregular and practicing the profession due to a lack in educational cadres. The teacher's average wage was 60,000 SYP monthly (an equivalent to USD 100).

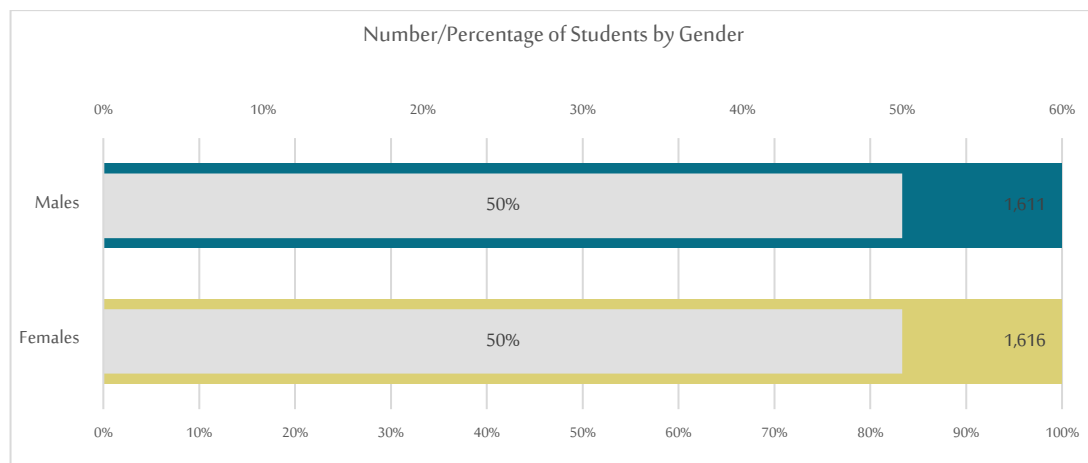
Table 37 Teaching Cadres in Tell Abiad City

#	Name of School	# of Male Teachers (teaching is their profession)	# of Female Teachers (teaching is their profession)	# of Irregular Teachers	Total Remunerated Teachers (males & females)	Average Salary
1	Abu Ubaidah ibn Al-Jarrah Primary School	0	0	13	13	60,000
2	Nusaybah Lower-Secondary School	0	0	22	22	60,000
3	Zaynab bint Al-Hussein Primary School	0	0	35	35	60,000
4	Salah Al-Din Al-Sabbagh Primary School	0	0	29	29	60,000
5	Al-Bassel Lower Secondary School	0	0	23	23	60,000
6	Ein Al-Arus Primary School 2	0	0	36	36	60,000
Total		0	0	158	158	60,000

4. Students in Tell Abiad City

The schools in Tell Abiad city included 3,227 students; 50% (1,611 students) of which were males and 50% (1,616 students) were females.

Figure 37 Numbers of Students by Gender in Tell Abiad City



The demographic statistics, conducted by the IMU’s enumerators in the ACU, demonstrated that the number of school-aged children in Tell Abiad city was 4,872 children, whereas the number of students in the city’s schools was 3,227 students; which means that 34% of the city’s children were dropouts. According to those statistics, females formed 52% of the city’s total population, and only 44% of students enrolled in schools, which means that the percentage of female dropouts was higher than that of males.

Table 38 Information on Students by Gender in Tell Abiad City

#	Name of School	Name of Neighborhood	# of Female Students	# of Male Students
1	Abu Ubaidah ibn Al-Jarrah Primary School	As-Souq	140	110
2	Nusaybah Lower-Secondary School	Al Jisr	400	-
3	Zaynab bint Al-Hussein Primary School	Al Basatin	468	432
4	Salah Al-Din Al-Sabbagh Primary School	Al Jisr	360	315
5	Bassel Lower Secondary SchoolAl-	Al Jisr	-	500
6	Ein Al-Arus Primary School 2	Ein Al-Arus	248	254
Total			1,616	1,611

Sixth: Water in Tell Abiad City

1. Public Wells (Artesian) in Tell Abiad City

Tell Abiad city had eight artesian wells, known as public wells, which were all functional except for Tell Abiad Center Well in As-Souq neighborhood, which was non-functional at the time of this report due to a malfunction in one of its pumps. The depth of the artesian wells is large which makes them more abundant when compared to surface wells; however, they need large submersible pumps and generator sets to operate the pumps.

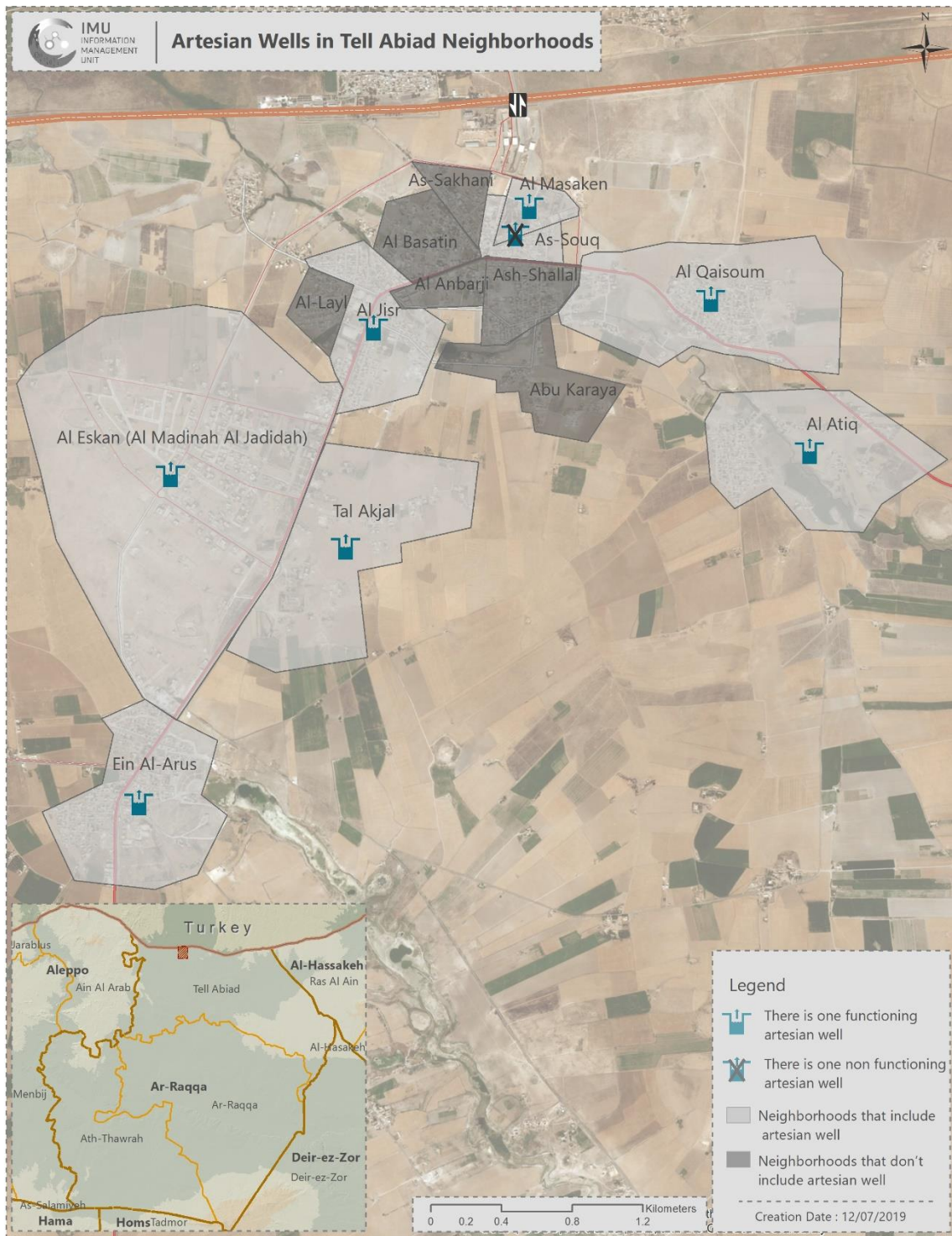
Those wells were powered by the public electricity grid when available and by their generator sets if electricity from the public grid was not available. The wells' abundance ranged between 15-80 m³/h and the operational hours ranged between 8-16 hours daily, except for Eastern Tell Abiad and Qaisoum wells, as the operational hours of both was limited to 2 and 3 hours daily. The water of all artesian wells was drinkable, except for Al Eskan and Qaisoum wells, as their water was limestone. The information sources confirmed that there was no change in the water rate of all artesian wells in Tell Abiad city. The artesian wells were supervised by the MSD of the PKK and pumped their water into the public network. On the other hand, the water of Al Eskan and Qaisoum wells was undrinkable, distributed by public tankers and used for hygiene and irrigation purposes.

International and local organizations worked on rehabilitating the wells (termed as water station because they pumped their water directly into the public network) and repairing their malfunctions as they arise. Concern, ACTED and ERD were examples on international organizations working in Tell Abiad city, and the Silk Road Organization was one of the most important local organizations working in the WASH sector there too.

Table 39 Public Artesian Wells in Tell Abiad City

Name of Well/Well Owner	Location of Well	Donating Entity	Functional/Non-functional	Water Abundance m ³ /Hour	# of Operational Hours/Daily Average	Quality of Water in terms of Potability	Source of Energy	Change in the Water Rate
Tell Abiad (Center)	As-Souq	MSD - PKK	Non-functional	80	16	Drinkable	Public grid – Generator set	No
Tell Abiad (Al Eskan)	Al Eskan	MSD - PKK	Functional	26	14	Undrinkable	Public grid – Generator set	No
Tell Abiad (Mahata)	Tal Akjal	MSD - PKK	Functional	35	14	Drinkable	Public grid – Generator set	No
Eastern Tell Abiad	Sharqi Al Jadid	MSD - PKK	Functional	30	2	Drinkable	Public grid – Generator set	No
Qaisoum	Eastern Al Atiq	MSD - PKK	Functional	25	3	Undrinkable	Public grid – Generator set	No
Ein Al-Arus	Ein Al-Arus	MSD - PKK	Functional	60	8	Drinkable	Public grid – Generator set	No
Muhammad Eldurra	Al Jisr	MSD - PKK	Functional	15	8	Drinkable	Public grid – Generator set	No
Al Masaken	Al Masaken	MSD - PKK	Functional	18	16	Drinkable	Public grid – Generator set	No

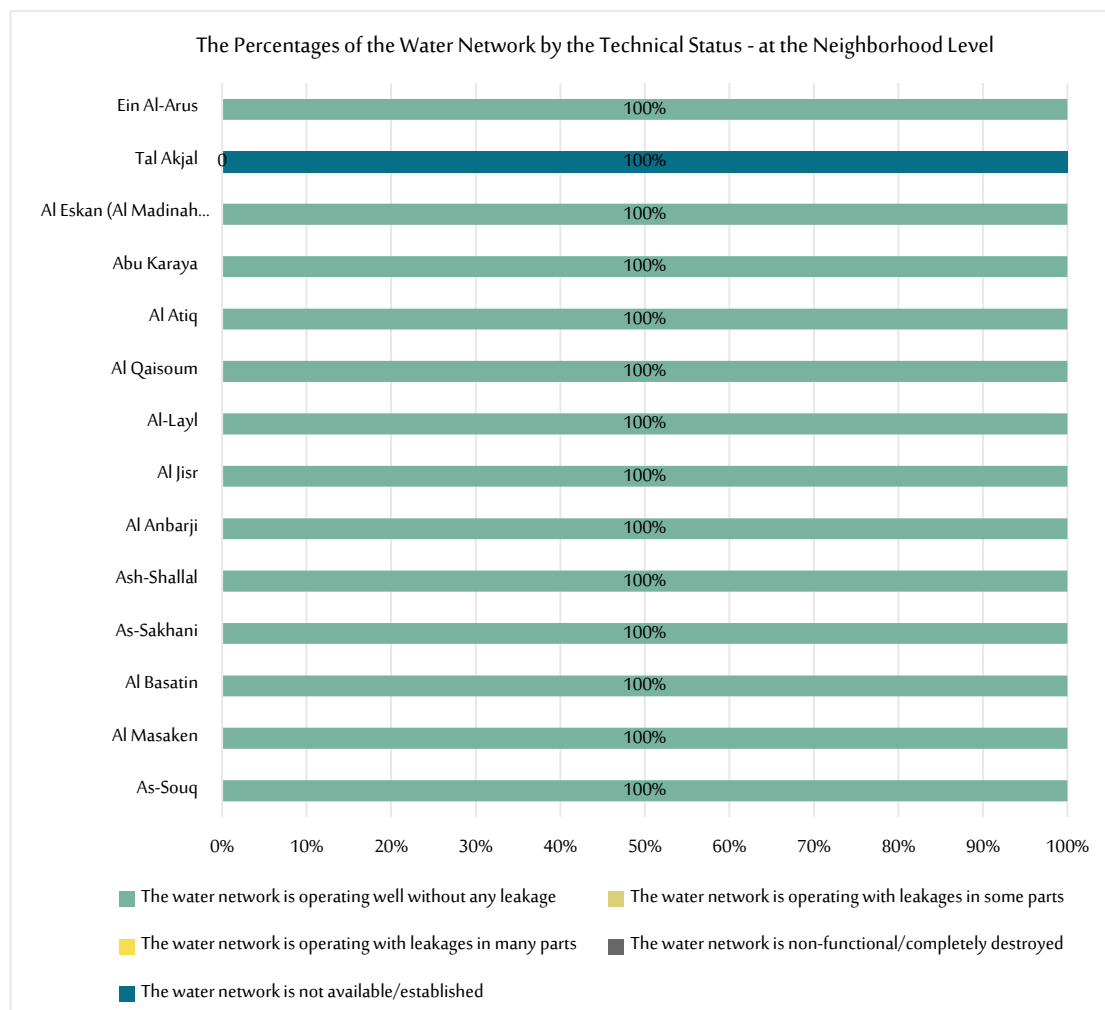
Map 21 Number of Artesian Wells in Tell Abiad City by Neighborhoods



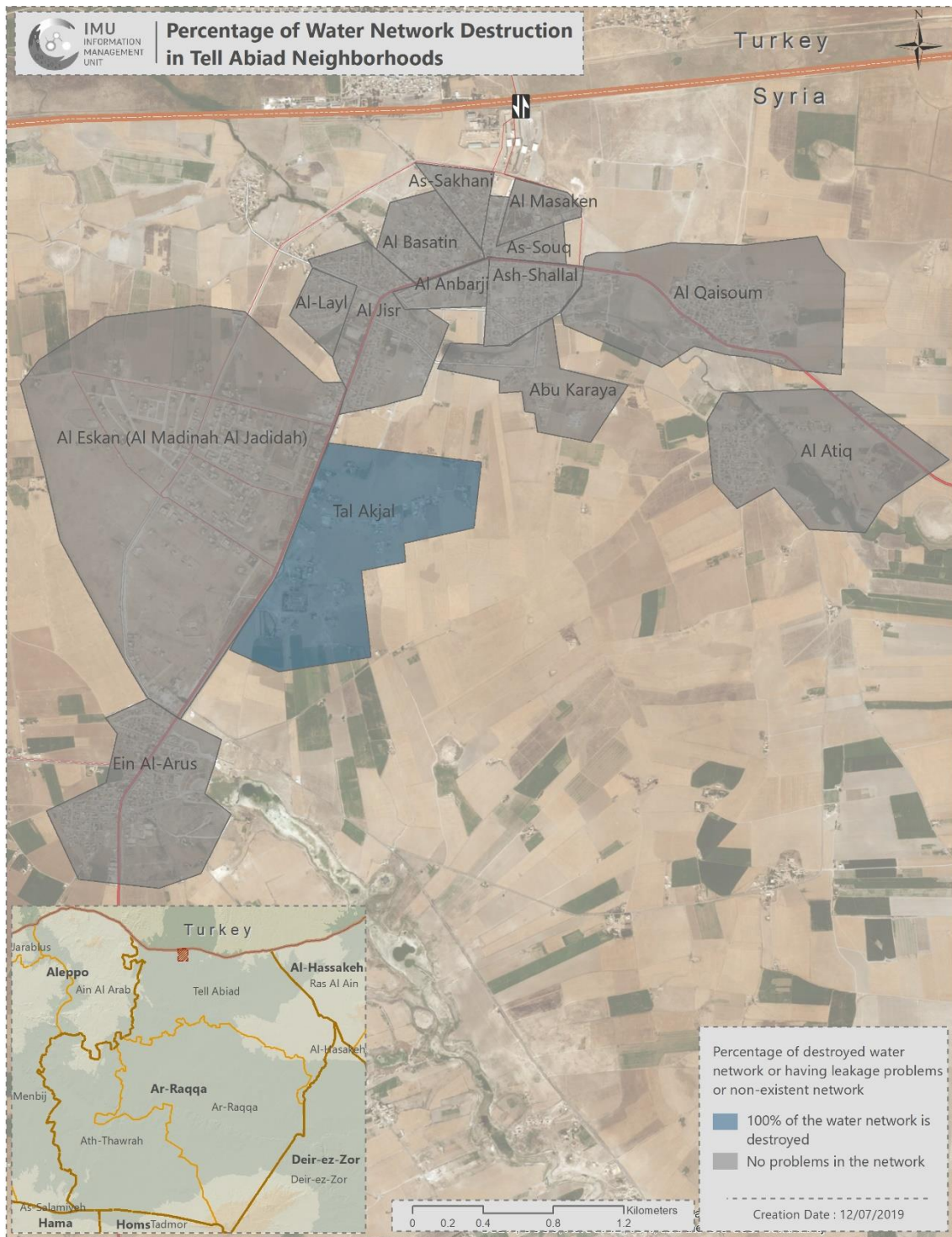
2. The Public Water Network in Tell Abiad City

The study results demonstrated that the public water network was sound without any leakages in all neighborhoods of Tell Abiad city, except for Tal Akjal neighborhood, within which no network was established at the time of this report and its housings were supplied with water through tankers. The housings in neighborhoods with a public water network contained water meters to calculate the monthly consumption; however, those meters were not used. Further, the Water Department of the PKK collected 1,000 SYP monthly (an equivalent to USD 1.7) for water supply from the public network.

Figure 38 The Technical Status of the Water Network in Tell Abiad City at the Neighborhood Level



Map 22 Destruction in the Water Network in Tell Abiad City by Neighborhoods

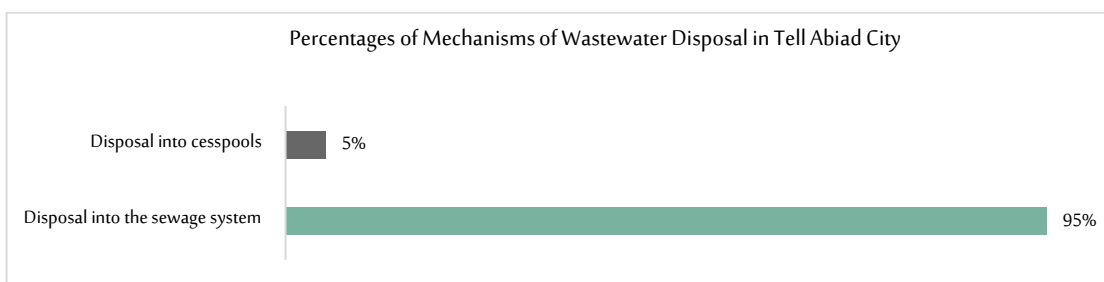


Seventh: The Sewage System in Tell Abiad City

1. Mechanisms of Wastewater Disposal in Tell Abiad City

5% of housings in Tell Abiad city disposed their wastewater into irregular cesspools. Those housings spread in Tal Akjal, Al-Layl and Abu Karaya neighborhoods. Al-Layl and Abu Karaya neighborhoods witnessed an urban expansion during the ongoing crisis and no entity established any sewage systems for the new housings. Tal Akjal neighborhood had no sewage system at the date of this report, and its housings were random and far apart. It was mentioned that all cesspools were not covered with layers of sand or gravel to filter the wastewater and avoid groundwater contamination, hence the name “irregular cesspools”. On the other hand, 95% of the city’s housings disposed their wastewater into the public sewage system.

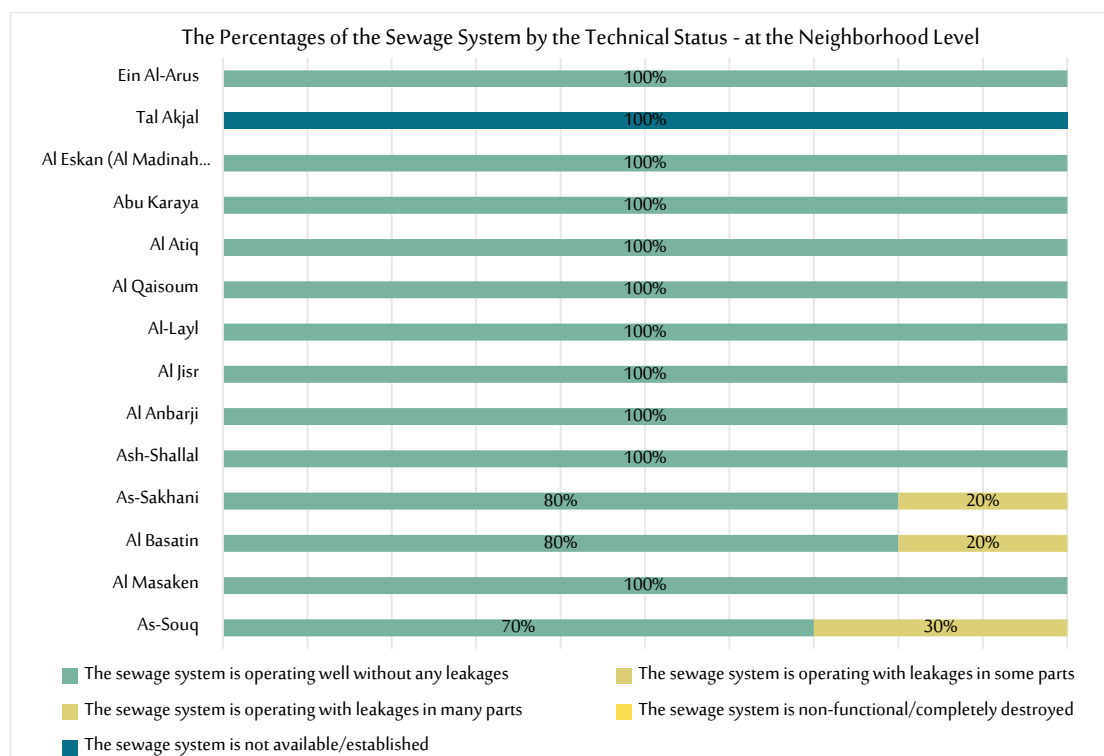
Figure 39 Mechanisms of Wastewater Disposal in Tell Abiad City



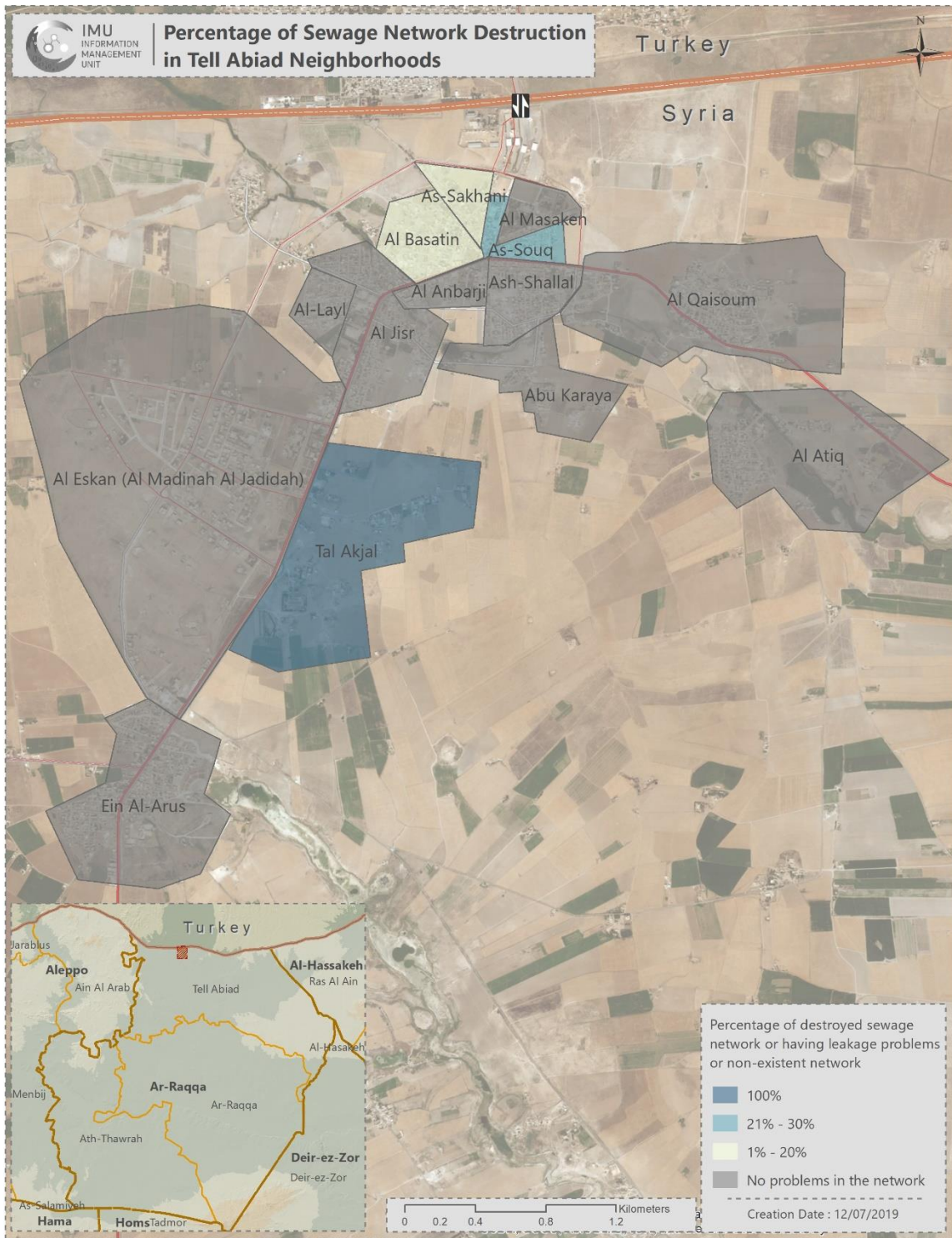
2. The Status of the Sewage System in Tell Abiad City

The results revealed a leakage in the public sewage system in Tell Abiad city by 30% in As-Souq neighborhood and by 20% in each of As-Sakhani and Al Basatin neighborhoods. There was no sewage system in Tal Akjal neighborhood, which disposed its wastewater into irregular cesspools.

Figure 40 The Technical Status of the Sewage System in Tell Abiad City at the Neighborhood Level



Map 23 The Technical Status of the Sewage System in Tell Abiad City at the Neighborhood Level

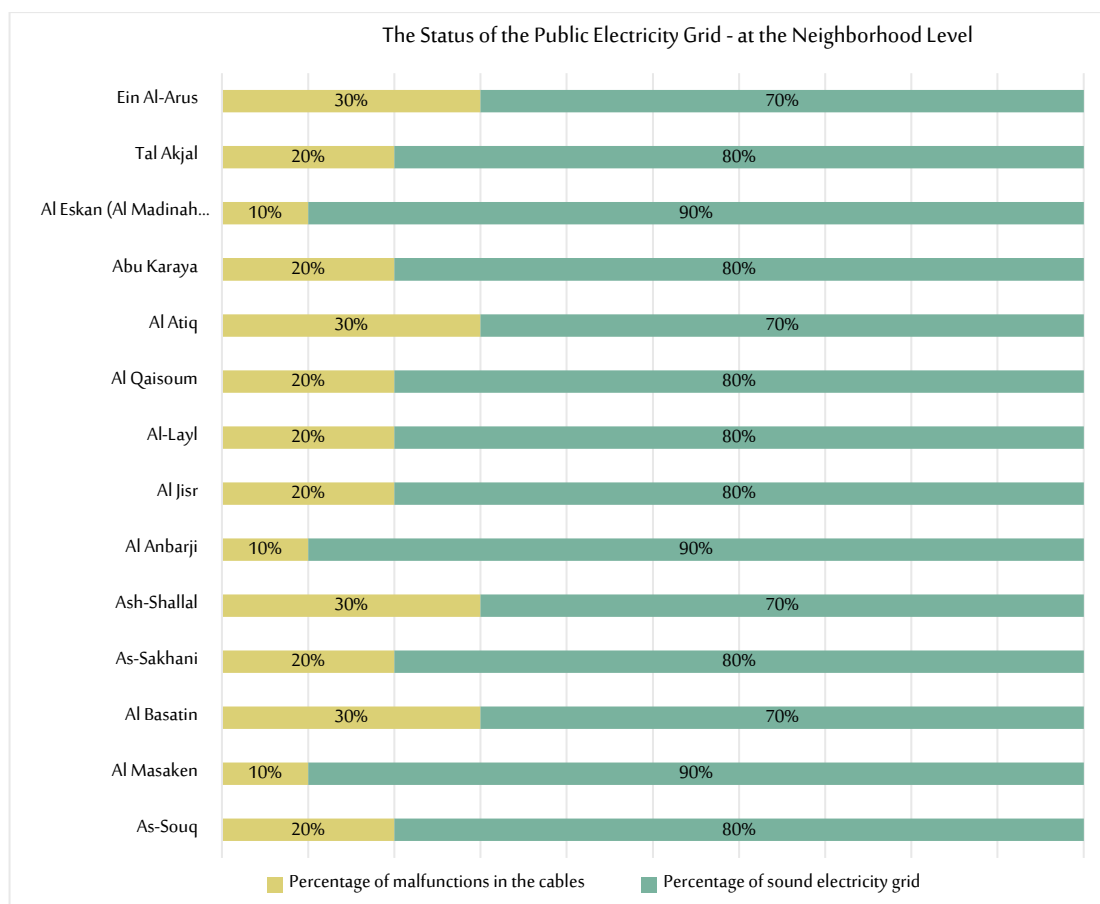


Eighth: Electricity in Tell Abiad City

1. The Public Electricity Grid

Prior to the ongoing crisis, all neighborhoods of Tell Abiad city were covered with the public electricity grid; however, the electricity grid was destroyed during battles that took place in the city, especially against ISIL. Supported by the USAID, the SES Project addressed the malfunctions in the electricity grid of the city, which neighborhoods still suffered from malfunctions within around 10-30% of the grid. The information sources also affirmed that the electricity grid contained worn-out parts in need for replacement. Further, electricity was supplied through the public grid for 24 continuous hours per day. The so-called Self-Administration of the PKK collected 4,000 SYP (an equivalent to USD 6.7) every two months for the electricity supply through the public grid. It was reported that electricity in Tell Abiad city was supplied by the generators of the Euphrates Dam in Ath-Thawrah city (Tabaqa).

Figure 41 The Technical Status of the Electricity Grid in Tell Abiad City at the Neighborhood Level

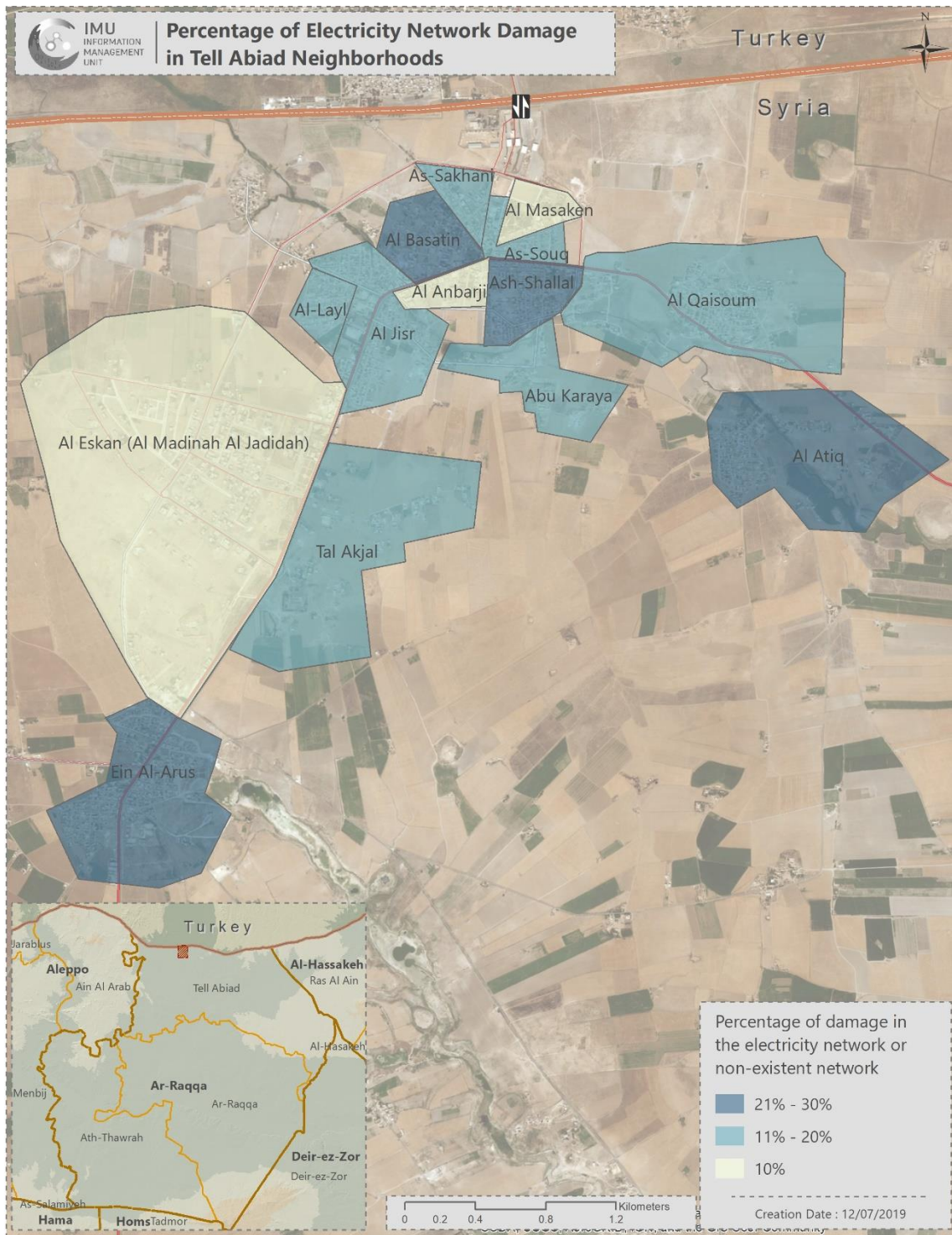


Tell Abiad city had 17 functional electricity converters (boost converters to step up the voltage in the public electricity grid); nine of which were vertical pad-mounted with a capacity of 200 KVA and eight of them were ground pad-mounted with a capacity of 400 KVA. All of the city's converters were functional and needed periodic maintenance only.

Table 40 Electricity Converters in Tell Abiad City

#	Name of Neighborhood	Type of Converter	Technical Status	Capacity	Needs
1	As-Sakhani	Ground pad-mounted	Functional	400	Periodic maintenance
2		Ground pad-mounted	Functional	400	Periodic maintenance
3	Ash-Shallal	Vertical pad-mounted	Functional	200	Periodic maintenance
4	Al Anbarji	Ground pad-mounted	Functional	400	Periodic maintenance
5	Al Jisr	Ground pad-mounted	Functional	400	Periodic maintenance
6		Ground pad-mounted	Functional	401	Periodic maintenance
7		Vertical pad-mounted	Functional	200	Periodic maintenance
8	Tell Abiad Al Sharqi Al Jadid	Vertical pad-mounted	Functional	200	Periodic maintenance
9		Vertical pad-mounted	Functional	200	Periodic maintenance
10	Tell Abiad Al Atiq	Vertical pad-mounted	Functional	200	Periodic maintenance
11	Al Eskan (Al Madinah Al Jadidah)	Ground pad-mounted	Functional	400	Periodic maintenance
12		Ground pad-mounted	Functional	400	Periodic maintenance
13		Ground pad-mounted	Functional	400	Periodic maintenance
14	Ein Al-Arus	Vertical pad-mounted	Functional	200	Periodic maintenance
15		Vertical pad-mounted	Functional	200	Periodic maintenance
16		Vertical pad-mounted	Functional	200	Periodic maintenance
17		Vertical pad-mounted	Functional	400	Periodic maintenance

Map 24 Destruction in the Electricity Grid in Tell Abiad City at the Neighborhood Level



2. The Public Electricity Generators (Amperes)

Tell Abiad city had 12 public electricity generators (Amperes) (which are privately owned but termed “public” to refer to their distribution of electricity to the entire population and to be distinguished from private generators which supply only one housing with electricity). The capacity of those generators ranged between 600-1,200 amperes and were not used at the time of preparing this report because electricity was permanently supplied from the public grid.

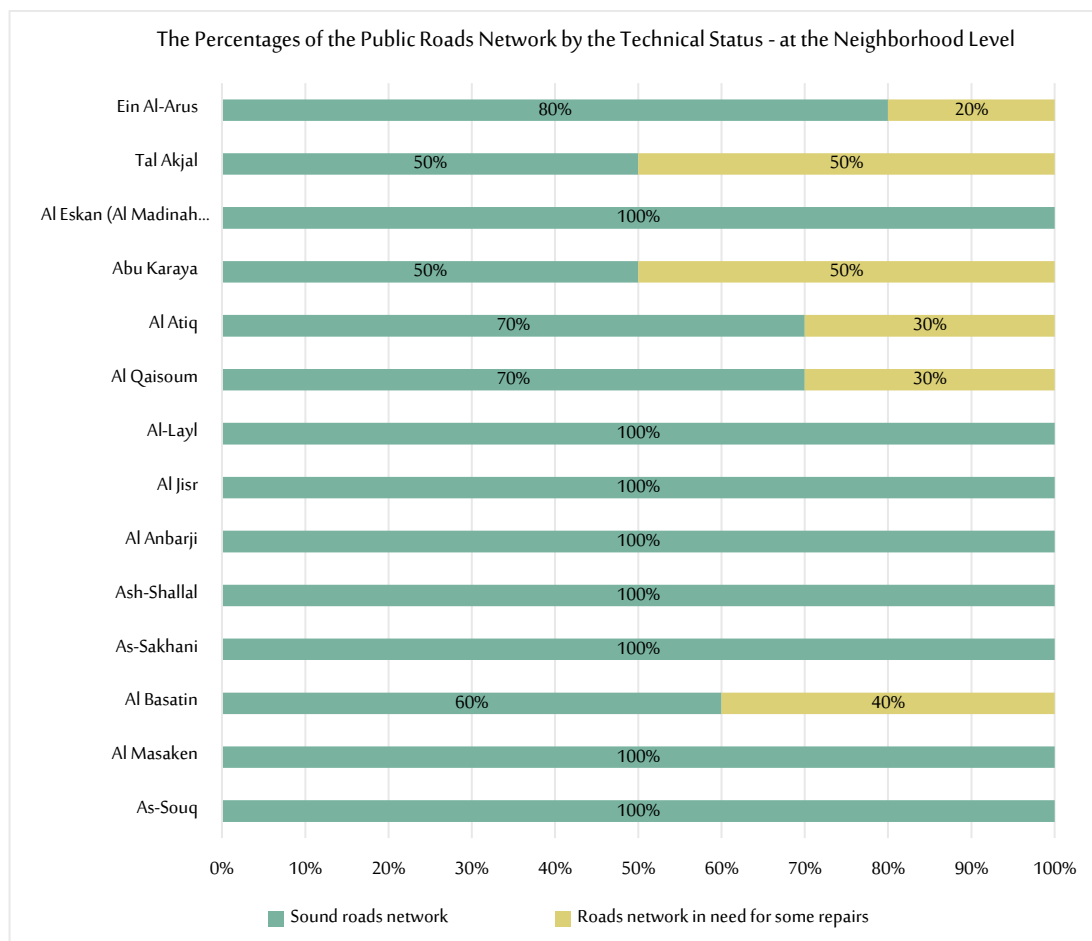
Table 41 Public Electricity Generators in Tell Abiad City at the Neighborhood Level

#	Name of Generator	Capacity	Covered Neighborhoods
1	Arab	600	Parts of As-Souq and Al Basatin neighborhoods and the entire As-Sakhani neighborhood
2	As-Sakhni	800	Al Basatin and parts of Al Jisr neighborhood
3	As-Sakhni	900	Al Anbarji, Ash-Shallal and parts of Al Jisr neighborhood
4	As-Sakhni	900	Al Anbarji, Ash-Shallal and parts of Al Jisr neighborhood
5	Ash-Shallal	600	Ash-Shallal and Abu Karaya neighborhoods
6	Al Jisr	800	Parts of Al Jisr & Al-Layl neighborhoods
7	Al Masaken	1,200	As-Souq and Al Masaken neighborhoods and parts of Ash-Shallal neighborhood
8	Al Qaisoum	800	Al Qaisoum neighborhood
9	Northern Ein Al-Arus	600	Ein Al-Arus neighborhood
10	Southern Ein Al-Arus	600	Ein Al-Arus neighborhood
11	Jawish	600	Parts of Al Jisr neighborhood
12	Al Easkan	1,200	Al Easkan neighborhood

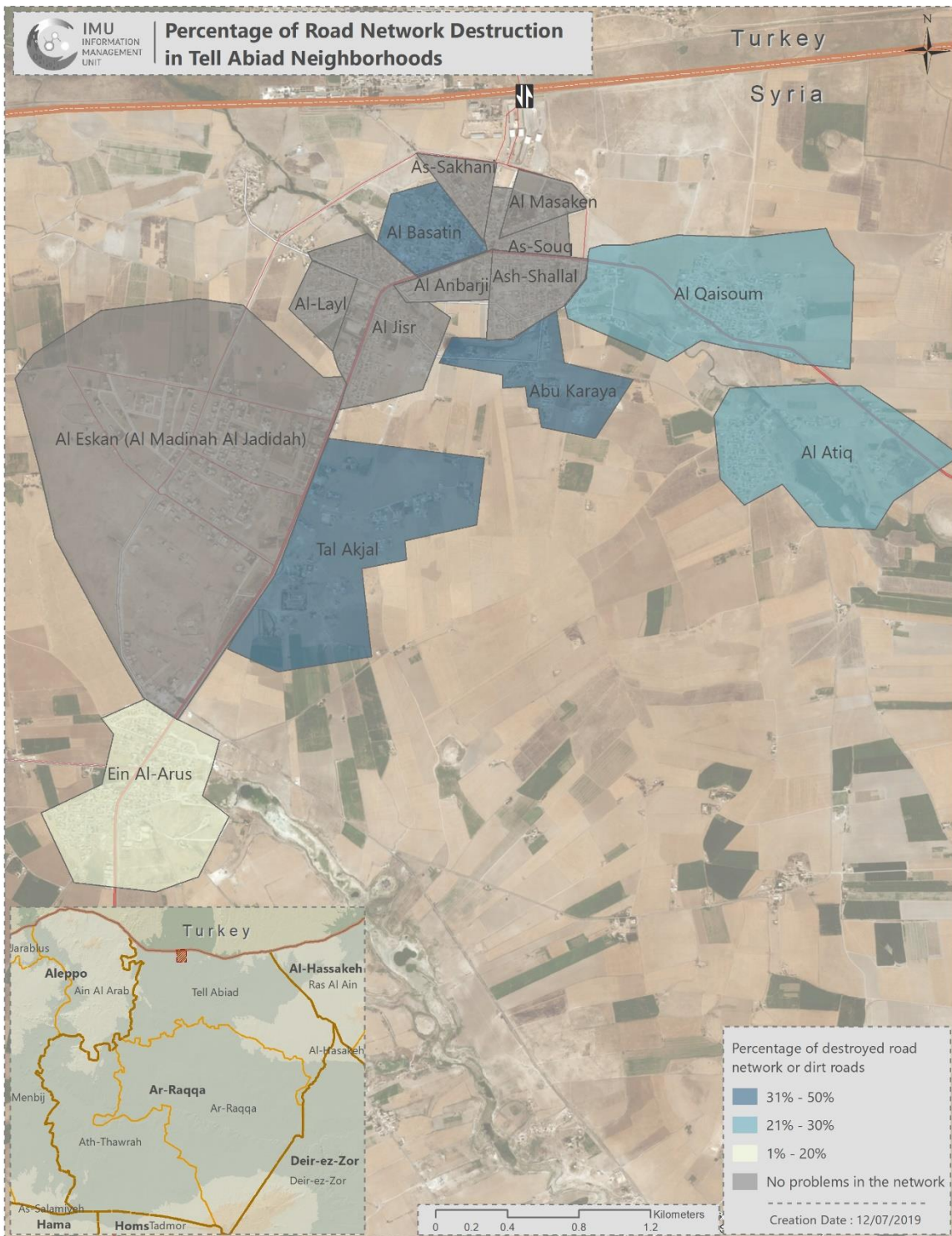
Ninth: Public Roads in Tell Abiad City

The study demonstrated that all public roads within Al -Eskan, Al-Layl, Al Jisr, Al Anbarji, Ash-Shallal, As-Sakhani, Al Masaken and As-Souq neighborhoods did not suffered from any destruction, as many organizations provided maintenance works for the roads in those neighborhoods. On the other hand, the roads were destroyed by 50% in each of Tal Akjal and Abu Karaya neighborhoods, by 40% in Al Basatin neighborhood, by 30% in each of Al Atiq and Al Qaisoum neighborhoods and by 20% in Ein Al-Arus neighborhood.

Figure 42 The Technical Status of the Roads Network in Tell Abiad City at the Neighborhood Level



Map 25 Destruction in the Roads Network in Tell Abiad City at the Neighborhood Level



SECTION IX: EIN ISSA CITY

First: The Neighborhoods of Ein Issa City

1. **First Neighborhood:** it stretches from the Silos Center, in front of An-Nakhil Guesthouse, towards the eastern entrance of Ein Issa city, from Al-Sharqia School on the south to Al-Sharqi Bakery on the west, along Ar-Raqqa-Ein Issa street on the north up to the Fodder Center and the southeastern corner of the garage. Its housings are composed of a single storey “known as traditional courtyard houses” and the percentage of destruction in its buildings is very little. Its residents are Syrian Arabs and their living conditions are average.
2. **Second Neighborhood:** or the southeastern neighborhood. It stretches from Al-Sharqi Bakery to the school, on the southwestern side of Ar-Raqqa-Ein Issa road, and towards Karm Az-Zaitoun district on the south and the Middle Neighborhood on the west. The percentage of destruction is estimated at 50% of the neighborhood’s buildings, which are composed of a single storey “traditional courtyard houses”. The residents are Syrian Arabs and their living conditions are average.
3. **Third Neighborhood:** or the middle neighborhood. It stretches from the southeastern neighborhood on the east towards the western side of Al-Sharqi Bakery. Its housings are single-storey luxurious villas and the percentage of destruction is very small. Its residents are Syrian Arabs and their living conditions are good.
4. **Fourth Neighborhood:** or the central southern neighborhood. It stretches from An-Nouri Mosque on the northeastern corner towards the 93 Brigade road, which exits the sub-district’s center from the south, up to the northern side of Al-Khreisat neighborhood and the political security detachment and Al-Deikan Bakery on the northwestern corner. The neighborhood has two types of housings; single-storey houses and luxurious houses “villas”, and the percentage of destruction does not exceed 50% of the buildings. Its residents are Syrian Arabs, in addition to Syrian Kurds as well yet fewer than Arabs.
5. **Fifth Neighborhood:** or At-Tall neighborhood. It stretches from An-Nouri Mosque on the southeastern corner of the city up to the market on the northeastern corner. This neighborhood has Ein Issa water spring and two types of housings; single-storey houses and luxurious houses “villas”. The percentage of destruction is very little there and the residents are Syrian Arabs.
6. **Sixth Neighborhood:** or Ellahib neighborhood. It stretches from the southwestern corner of the 93 Brigade up to the market center on the north. Its housings are composed of a single storey “known as traditional courtyard houses”. Its residents are Syrian Arabs, in addition to some Kurdish families. Their living conditions are average.
7. **Seventh Neighborhood:** or the northwestern neighborhood. It stretches from Ellahib neighborhood on the south towards Aleppo-Al-Hasakeh road on the north, and from the agricultural lands on the west to As-Saqer guesthouse on the east. This neighborhood is the market center and includes most of the governmental buildings. Its housings are two storey buildings with commercial shops on their ground floors. The percentage of destruction is very small in the neighborhood. The residents are Syrian Arabs, in addition to some Kurdish families, and their living conditions are average.

8. **Eighth Neighborhood:** or the southern neighborhood. It stretches from the graveyard on the southeastern corner towards the 93 Brigade and its gate on the west. Its housings are composed of a single storey “known as traditional courtyard houses”. The percentage of destruction is by 40% of the neighborhood’s buildings. Its residents are Syrian Arabs and their living conditions are deteriorated.
9. **Ninth Neighborhood:** it is composed of scattered housings by Karm Az-Zaitoun and along the 93 Brigade on the north and bordered by the graveyard from the southeastern corner. Its residents are Syrian Arabs and their living conditions range between weak and average and its buildings are destroyed in varying proportions.

Map 26 The Neighborhoods of Ein Issa City

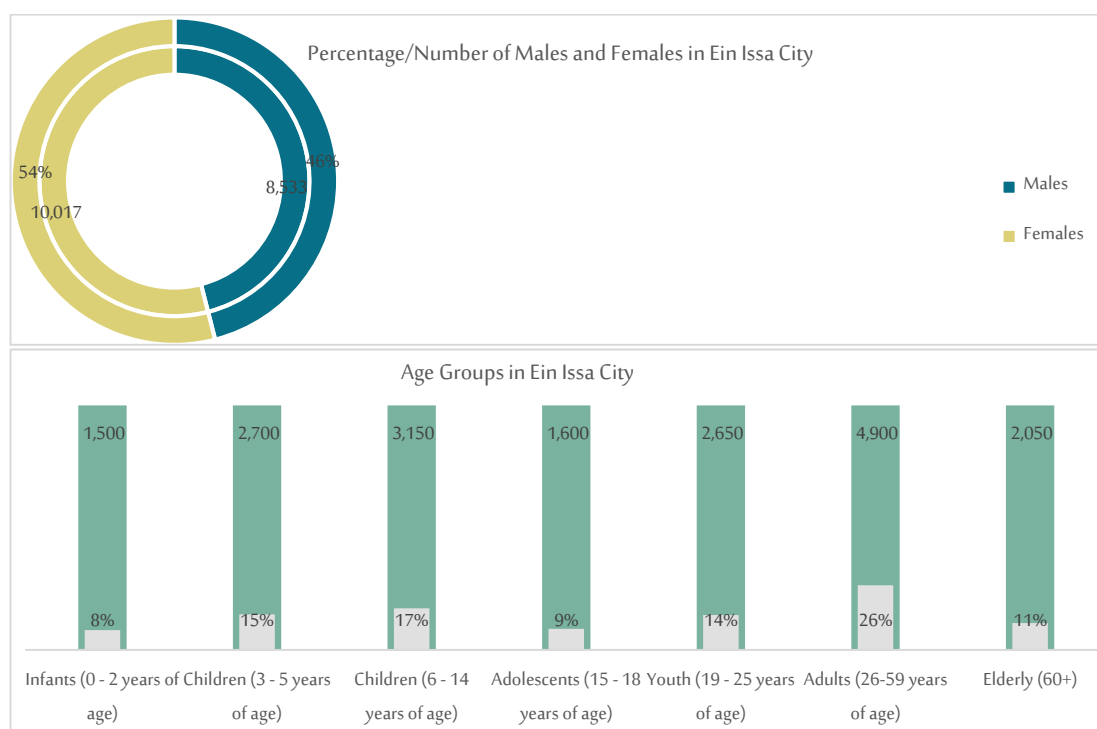


Second: The Demographic Composition of Ein Issa City

1. The Population Census and Age Groups in Ein Issa City

According to population statistics conducted by the IMU enumerators, of the ACU, Ein Issa city had a population of 18,550 people in June 2019; of which females constituted 54% (10,017 females) and males constituted 46% (8,533 males).

Figure 43 The Population Census by Gender and Age Groups in Ein Issa City

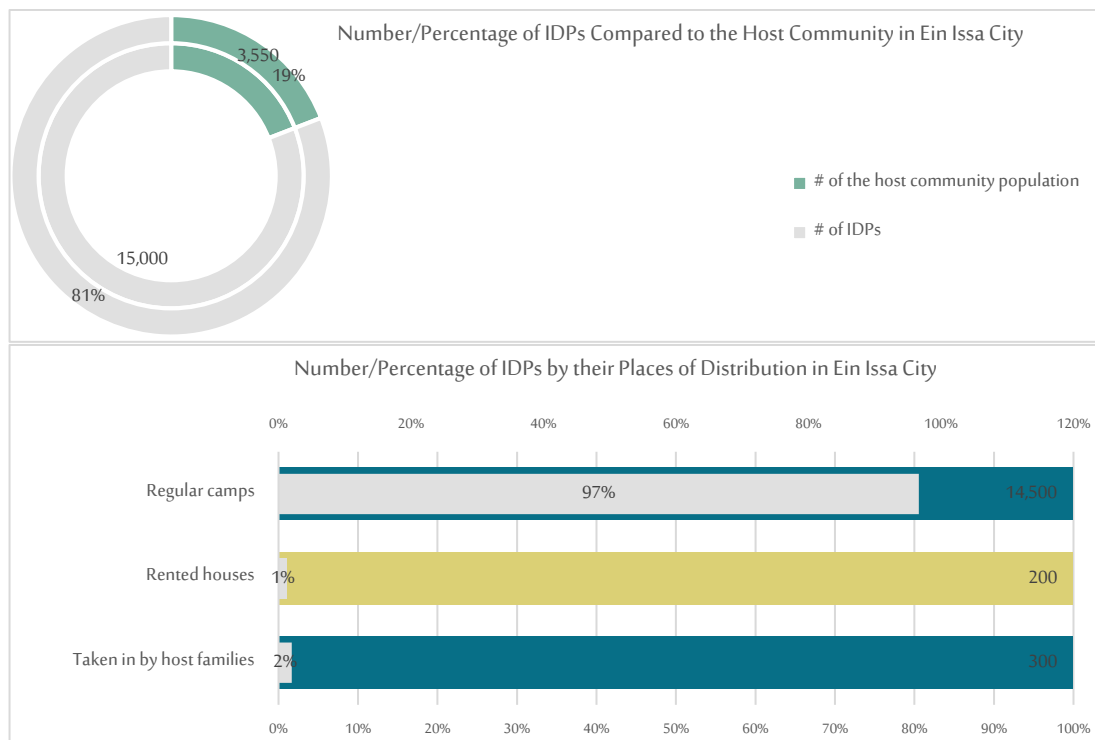


The age group of infants constituted 8% (1,500 infants) of the city’s population, children between 3-5 years of age formed 15% (2,700 children) and children between 6-14 years of age – the primary school-aged children - formed 17% (3,150 children) of the city’s population. Adolescents between 15-18 years of age constituted 9% (1,600 adolescents), youth between 19-25 years of age formed 14% (2,650 young people), adults between 26-59 years of age formed 26% (4,900 adults) and elderly people over 60 years of age formed 11% (2,050 people) of the city’s population. It was noted that the bulk of the population of Ein Issa city was from children or elderly people, whereas the youth and adults (working classes) migrate outside the city.

2. The IDPs and their Distribution Places in Ein Issa City

In Ein Issa city, there were 15,000 IDPs, constituting 81% of the city's population, and 3,550 host community members, constituting 19% of the city's population.

Figure 44 IDPs and their Distribution Places in Ein Issa City



Ein Issa sub-district was a military area affiliated with the PKK's forces for containing their largest headquarters. Heavy clashes took place in the city when it was wrested from ISIL's control, the majority of the residents were displaced, and the PKK displaced some families. According to the estimated statistics of the population issued by the regime in 2011, the population of Ein Issa city was 8,006 at that time, whereas it contained 3,550 people (host community members) at the time of this report, which means that over 60% of the city's population were displaced from their houses. The information sources confirmed that the bulk of the city's housings were deserted; however, 97% (14,500 IDPs) of IDPs stayed in regular camps, as the PKK's forces established Ein Issa Camp (known as Alaqtan camp), forced all IDPs to stay there and prevented them from leaving it. The majority of the camp's IDPs were displaced from their towns in Deir-ez-Zor and Ar-Raqqa countryside during the battles between the PKK and the ISIL. Furthermore, the information sources confirmed that the PKK was holding the IDPs in Ein Issa Camp within dire humanitarian conditions to acquire assistance from international organizations and donor states. Ein Issa city had 200 displaced families staying in rented houses and 300 families taken in by host families or staying in borrowed houses.

Third: The Health Sector in Ein Issa City

1. Entities Supervising and Supporting the Medical Sector in Ein Issa City

Ein Issa city included two basic medical points only; a privately-owned hospital, which was not supported by any entity, and a dispensary, which was established within Ein Issa camp after the PKK forces controlled the city and supported by Almaoda Alkheria (local charity organization).

Table 42 Information of Medical Centers in Ein Issa City

Name of Hospital/Dispensary	Supervising Entity	First Donating Entity	Second Donating Entity
Omar Alloush Hospital	Private owner	None	None
The Dispensary of Ein Issa Camp	Health Office - PKK	Almaoda Alkheria	None

2. Medical Cadres and Specializations in Ein Issa City

Hospitals and dispensaries in Ein Issa city contained 11 male doctors only. The medical specializations in Omar Alloush private hospital were limited to general surgery, pediatrics, internal medicine and gynecology, whereas the dispensary of Ein Issa Camp (Alaqtan camp) had 3 doctors specialized in gynecology, pediatrics and internal medicine. There were 10 male nurses and 13 female nurses in the city's hospitals and dispensaries, in addition to 5 technicians from various specializations, 5 administrators and 6 cleaning/maintenance staff.

Table 43 Information of Medical Cadres in Ein Issa City

Name of Hospital/Dispensary	Total # of Physicians	Medical Specialties	# of Female Physicians	# of Male Nurses	# of Female Nurses	# of Technicians	# of Administrators	# of Cleaning/Maintenance Staff
Omar Alloush Hospital	8	General surgery Pediatrics Internal medicine Gynecology	0	8	11	4	3	5
The Dispensary of Ein Issa Camp	3	Gynecology Pediatrics Internal medicine	0	2	2	1	2	1
Total	11		0	10	13	5	5	6

3. Equipment of Medical Centers in Ein Issa City

Omar Alloush Hospital had two equipped operation rooms, 25 patient beds, a CT scan machine, and a generator consuming 15 liters of diesel per working hour, but it was not equipped for dialysis. The Dispensary of Ein Issa Camp had a generator consuming 5 liters of diesel per working hour. The information sources confirmed that electricity became available through the public electricity grid for most for the day and generators were not relied upon during the reporting period.

Table 44 Equipment of Medical Centers in Ein Issa City

Name of Hospital/Dispensary	# of Equipped Operation Rooms	# of Patient Beds	Is there a CT Scan?	Is the Hospital Equipped for Dialysis?	# of Generators?	Quantity of Diesel Needed for the Generators per Working Hour
Omar Alloush Hospital	2	25	Yes	No	1	15
The Dispensary of Ein Issa Camp	-	-	No	No	1	5
Total	2	25	0	0	2	20

4. Number of Beneficiaries of Medical Services in Ein Issa City

During June 2019, 900 patients were admitted and 80 surgeries were conducted in the privately-owned Omar Alloush hospital in Ein Issa city, which provided remunerated services and hence the little number of its patients. Supported by Almaoda Alkheria (local NGO), Ein Issa dispensary provided free services for Ein Issa camp residents (Alaqtan camp) and received 3,924 patients; however, its services were limited to medical examinations, first aid services and dispensation of medications. The high number of the dispensary's patients reflects the deteriorated humanitarian condition of the residents of Ein Issa camp.

Table 45 Number of Beneficiaries of Medical Centers in Ein Issa City

Name of Hospital/Dispensary	# of Patients during a One-month Period	# of Operations during a One-month Period	Cases of Free Service
Omar Alloush Hospital	900	80	All cases are paid for by patients
The Dispensary of Ein Issa Camp	3,924	-	All cases are free of charge
Total	4,824	80	

5. The Needs of the Medical Centers in Ein Issa City

Omar Alloush Hospital needed intensive care equipment, whereas the Dispensary of Ein Issa Camp needed a CT scan machine and medications.

Table 46 The Needs of the Medical Centers in Ein Issa City

Name of Hospital/Dispensary	Needs
Omar Alloush Hospital	Intensive care equipment
The Dispensary of Ein Issa Camp	CT scan machine – Medications

Fourth: Bakeries in Ein Issa City

1. Number of Bakeries and Price of Bread in Ein Issa City

Ein Issa city had four privately-owned bakeries; three of which were functional, and one was non-functional because operating it was useless for the city did not contain a large number of residents. All functional bakeries were producing subsidized bread which cost 100 SYP (an equivalent to USD 0.16) per 8 loaves (i.e. 1 kg) and were supervised by investors who rented the bakeries from their original owners. Some grocery stores sold non-subsidized bread bags for 125 SYP (an equivalent to USD 0.2). Information sources confirmed that the markets sold the same subsidized bread as the bakeries disposed their surplus production through stores. Bread was distributed for free in Ein Issa Camp (Alaqtan Camp).

Figure 45 Number of Bakeries and Price of Bread in Ein Issa City



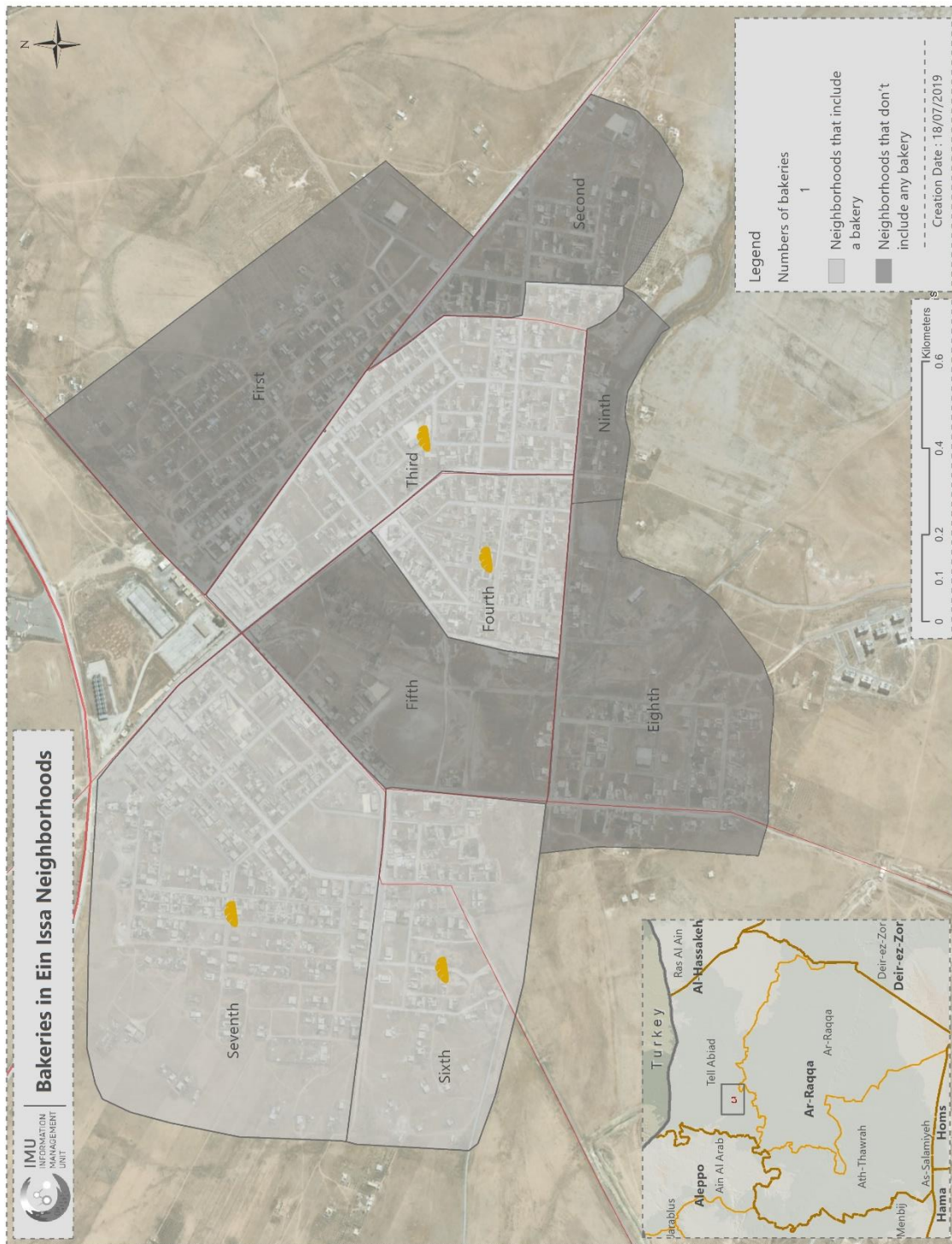
2. Entities Supervising the Bakeries and their Cadres in Ein Issa City

All bakeries in Ein Issa city were supported with fuel and flour by the PKK’s Committee of Bakeries at reduced prices in return of producing bread and selling it at a reduced price (100 SYP per 8 loaves; an equivalent to 1 kg).

Table 47 Bakeries in Ein Issa City and Entities Supervising them

Name of Bakery	Location/Neighborhood	Owner/Supervising Entity	Subsidizing Entity	Type of Subsidization	# of Administrators	# of Technicians	# of Workers
Al-Nahyeh Bakery	Third neighborhood	Investor	Committee of Bakeries	Fuel - Flour	1	2	12
Al-Sharqi	Fourth neighborhood	Investor	Committee of Bakeries	Fuel - Flour	1	2	10
Al-Deikan	Seventh neighborhood	Investor	Committee of Bakeries	Fuel - Flour	1	1	5
Al-Mheidi	Sixth neighborhood	Private owner	Non-functional	It is useless to operate it as the number of the population is not large			
Total					3	5	27

Map 27 Number of Functional Bakeries in Ein Issa City by Neighborhoods



3. The Bakery's Production Capacity and the Bread's Production Cost in Ein Issa City

The actual productive capacity of bakeries in Ein Issa city ranged between 6-12 tons per shift; however, the total production of those bakeries did not exceed 7 tons at the time of preparing this report as the city's population was not large. The cost of producing 1 ton of bread (without the flour's cost) in subsidized bakeries was 25,000 SYP (an equivalent to USD 42).

Table 48 The Bakeries' Production Capacity and the Bread's Production Cost in Ein Issa City

Name of Bakery	Actual Productive Capacity of the Bakery/ton	Current Quantity of Product	# of Production Lines in the Bakery	Cost of Producing 1 ton of Bread/USD	Where does the Bakery get its Operational Expenses from?	Where does the Bakery get its Flour from?	Beneficiaries of Bread	Maintenance Work
Al-Nahyeh Bakery	12	7	3	25,000	Committee of Bakeries	Committee of Mills	Residents of the city, neighboring villages and Ein Issa Camp	Electricity generator – Dough kneading machine - Fermentation conveyor belts
Al-Sharqi	8	4	2	25,000	Committee of Bakeries	Committee of Mills	Residents of the city and neighboring villages	Periodic maintenance
Al-Deikan	6	3.5	2	25,000	From selling bread	Committee of Mills	Residents of the city and neighboring villages	Periodic maintenance
Total	26	14.5	7	25,000				

The actual productive capacity of a bakery means the quantity of bread produced per shift. The bakery's capacity varies by its size and equipment and depends on multiple standards and most importantly the number of production lines. The more the production lines, the higher the bakery's capacity. Similarly, the larger the fermentation conveyor belts and the oven, the higher the bakery's capacity.

The cost of producing 1 ton of bread (without the flour's cost) was 25,000 SYP (an equivalent to USD 42) in the bakeries of Ein Issa city as the Committee of Bakeries subsidized them with needed fuel and flour at a reduced price; the cost of distributed fuel was 75,000 SYP per 1 liter (an equivalent to USD 0.125) and the cost of distributed flour at a reduced price was 70,000 SYP (an equivalent to USD 117), whereas the other expenses (yeast, salt, water, wages of workers and maintenance expenses) were secured from selling bread.

According to the MPI⁴ issued by the IMU, the market price of fuel in Ar-Raqqa governorate ranged between 175-387 SYP (an equivalent to USD 0.29-0.77) per 1 liter, and the market price of flour was 265 SYP (an equivalent to

USD 0.44) per 1 kg. Information sources confirmed that 1 ton of flour cost between USD 345-400 in the market, while the other expenses were secured from selling bread.

Fifth: Schools in Ein Issa City

1. Information on Schools in Ein Issa City

Ein Issa city had four functional gender-mixed schools teaching female and male students from first to sixth grade only (or what used to be formerly known as primary level). There were no upper or lower secondary schools (from 7th to 12th grades) in the city. All those schools had one morning shift and their accommodation capacity was 1,620 students per shift.

Table 49 General Information on Schools in Ein Issa City

#	Name of School	Neighborhood	Operational Status	Condition of School Building	Accommodation Capacity (per Shift)	Gender-mixed?	# of Shifts	Educational Stages Taught
1	Camp School	Seventh neighborhood	Functional	Not destroyed	600	Gender-mixed	One shift	1-6
2	Ein Issa Middle School	Third neighborhood	Functional	Not destroyed	420	Gender-mixed	One shift	1-6
3	Omar ibn Al-Khattab	Fourth neighborhood	Functional	Not destroyed	300	Gender-mixed	One shift	1-6
4	Western Ein Issa Primary School	Sixth neighborhood	Functional	Not destroyed	300	Gender-mixed	One shift	1-6
Total		-	-	-	1,620	-	-	-

2. The Status of Schools in Ein Issa City

28 classrooms in functional schools in Ein Issa city were equipped and used for educational purposes, whereas 13 classrooms needed repairs.

23 windows in the city's schools needed repairs, and there were no completely destroyed irreparable windows that needed replacement.

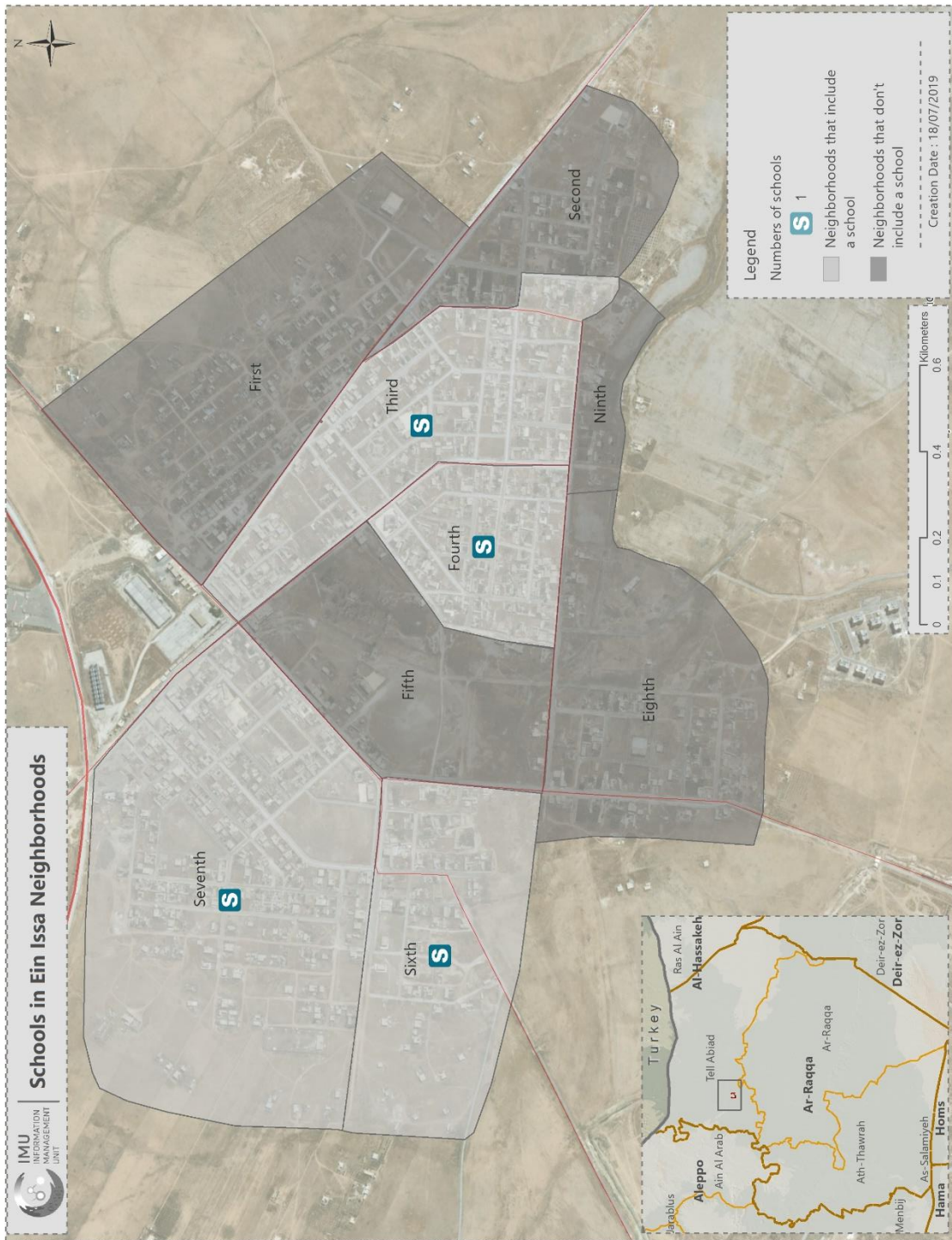
13 doors in the city's schools needed repairs, and there were no completely destroyed irreparable doors that needed replacement.

Additionally, all toilets in the city's schools were functional and did not need repairs. 10 of the schools' desks needed repairs, and all schools suffered from a lack of student desks.

Table 50 Information on the Technical Status of School Facilities in Ein Issa City

#	Name of School	# of Rooms in Need for Repairs	# of Windows in Need for Replacement	# of Windows in Need for Repairs	# of Doors in Need for Repairs	# of Doors in Need for Replacement	# of Toilets in Need for Simple Repairs	# of Toilets in Need for Full Rehabilitation	# of Desks in Need for Repairs	# of Desks in Need for Replacement
1	Camp School	0	0	0	0	0	0	0	8	0
2	Ein Issa Middle School	7	0	11	7	0	1	0	0	0
3	Omar ibn Al-Khattab	3	0	5	3	0	0	0	2	0
4	Western Ein Issa Primary School	3	0	7	3	0	0	0	0	0
	Total	13	0	23	13	0	1	0	10	0

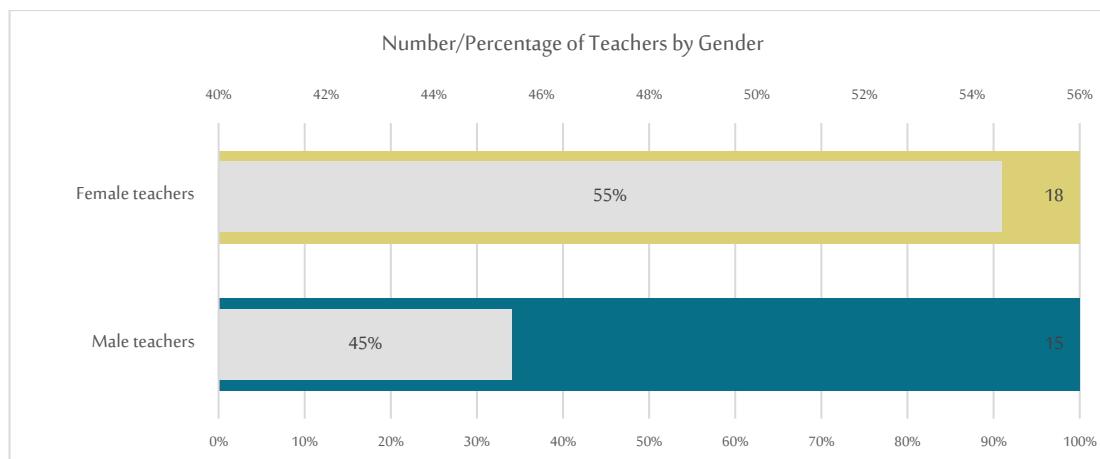
Map 28 Numbers of Functional and Non-Functional Schools in Ein Issa City by Neighborhoods



3. Teaching Cadres in Ein Issa City

The schools in Ein Issa city included 33 teachers; 45% (15 teachers) of which were males and 55% (18 teachers) were females. All teachers in the city’s schools were monthly remunerated by the controlling party; the PKK.

Figure 46 Number/Percentage of Teachers by Gender in Ein Issa City



The results showed that all teachers in Ein Issa city’s schools were regular. Regular teachers are those who have already been in the teaching profession before the ongoing crisis, as assigned by the Syrian Directorate of Education under permanent contracts. After graduating from college or intermediate institute, they undergo a recruitment competition held by the Ministry of Education, and those who pass the competition sign permanent job contracts with the Ministry and are assigned as per their various specialisations. All teachers were remunerated by the controlling party, the PKK. The teacher’s average wage was 60,000 SYP monthly (an equivalent to USD 100).

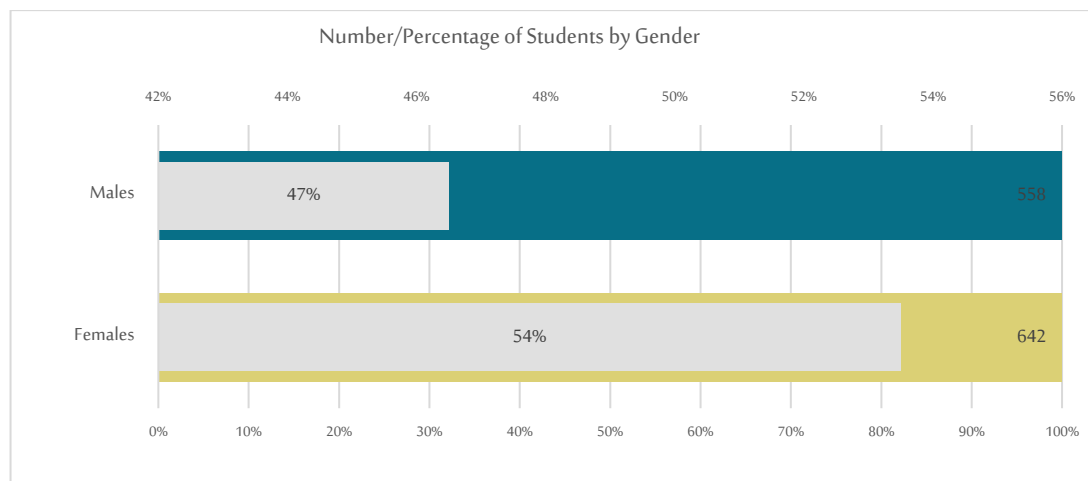
Table 51 Teaching Cadres in Ein Issa City

#	Name of School	# of Male Teachers (teaching is their profession)	# of Female Teachers (teaching is their profession)	# of Irregular Teachers	Total Remunerated Teachers (males & females)	Average Salary
1	Camp School	6	8	0	14	60,000
2	Ein Issa Middle School	3	4	0	7	60,000
3	Omar ibn Al-Khattab	2	4	0	6	60,000
4	Western Ein Issa Primary School	4	2	0	6	60,000
Total		15	18	0	33	60,000

4. Students in Ein Issa City

The schools in Ein Issa city included 1,200 students; 47% (558 students) of which were males and 54% (642 students) were females.

Figure 47 Numbers of Students by Gender in Ein Issa City



The demographic statistics, conducted by the IMU’s enumerators in the ACU, demonstrated that the number of school-aged children in Ein Issa city was 4,750 children, whereas the number of students in the city’s schools was 1,200 students; which means that 75% of the city’s children were dropouts. It was also reported that the city’s schools taught primary stage only (from 1st to 6th grades), which means that all children in lower and upper secondary stages (from 7th to 12th stages) were dropouts.

Table 52 Information on Students by Gender in Ein Issa City

#	Name of School	# of Male Students	# of Female Students
1	Camp School	275	325
2	Ein Issa Middle School	90	110
3	Omar ibn Al-Khattab	103	97
4	Western Ein Issa Primary School	90	110
Total		558	642

Sixth: Water in Ein Issa City

1. The Water Stations in Ein Issa City

Ein Issa city had two water station. 1) **Ein Issa Water Station**: a huge tank supplied with water from Zahera Water Station, equipped with six pumping engines, its daily productive capacity was 15,000 m³/daily before the ongoing crisis and in need for maintenance for some of its parts, operational expenses and connection to power sources. 2) **Zahera Water Station**: equipped with nine pumping engines, its daily productive capacity was 12,000 m³/daily before the ongoing crisis, in need for maintenance for some of its parts, operational expenses and connection to power sources and supplies Ein Issa Station with water, which was pumping water into the public water network of the city, and feeds neighboring villages with water too. Those water stations stopped operating mainly because of the decreasing water level of the main water canal (water flow from the Euphrates River) connecting the river and Tal Elsamem town, which forced the administrators to rely on artesian wells instead of water stations.

Table 53 Public Water Stations Supplying Ein Issa City

Name of Water Station	Location of Water Station	The Entity Responsible for Managing the Station	Donating Entity	# of Pumping Engines	Source of Energy	Productive Capacity m ³ /day	Current Productive Capacity m ³ /day	# of Workers in the Station	Basic Needs
Ein Issa Water Station	Close to Ein Issa city	MSD - PKK	None	6	Non-functional	15,000	Non-functional	-	In need for maintenance, a source of energy and operational expenses
Zahera Water Station	South of Ein Issa city	MSD - PKK	None	9	Non-functional	20,000	Non-functional	-	In need for maintenance, a source of energy and operational expenses

2. Artesian Wells in Ein Issa City

Ein Issa city had two artesian wells, known as public wells. The depth of the artesian wells is large which makes them more abundant when compared to surface wells; however, they need large submersible pumps and generator sets to operate the pumps. Those wells were powered by the public electricity grid when available and by their generator sets if electricity from the public grid was not available. The wells' abundance ranged between 12-18 m³/h and the operational hours ranged between 12-18 hours daily. The information sources confirmed that the water of those wells was drinkable. IRC Organization depended on those two wells to pump water into the public network since the water stations in Ein Issa city stopped operating.

The study showed that the public water network was operating in all neighborhoods of Ein Issa city but suffered from some leakages which prevented water from accessing upper floors. The so-called MSD of the PKK collected 1,000 SYP monthly (an equivalent to USD 1.6) from every house supplied with water from the public network.

Table 54 Artesian Wells in Ein Issa City

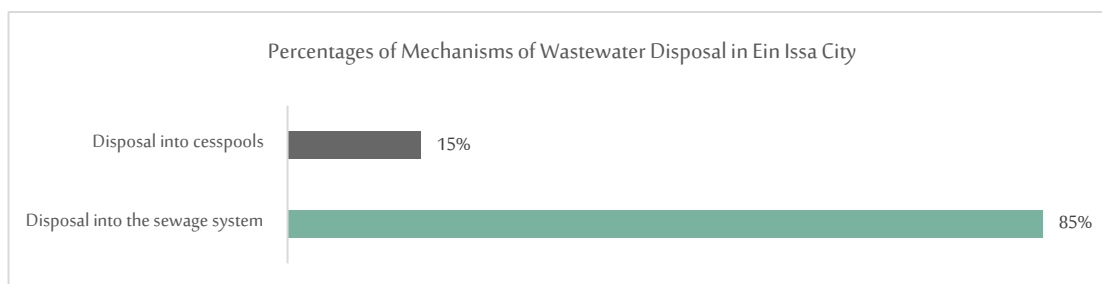
Name of Well/Well Owner	Location of Well	Donating Entity	Functional/Non-functional	Water Abundance m3/Hour	# of Operational Hours/Daily Average	Quality of Water in terms of Potability	Source of Energy	Change in the Water Rate
Al-Nahyeh Well	Third neighborhood	IRC	Functional	42	18	Drinkable	Public grid – Generator set	No
Fleijeh Well	Fleijeh town	IRC	Functional	80	12	Drinkable	Public grid – Generator set	No

Seventh: The Sewage System in Ein Issa City

1. Mechanisms of Wastewater Disposal in Ein Issa City

15% of housings in Ein Issa city disposed their wastewater into irregular cesspools. Those housings spread in the Eighth and the Sixth neighborhoods; which suffered from a destruction in their sewage system. On the other hand, 85% of the city’s housings disposed their wastewater into the public sewage system. It was mentioned that all cesspools were not covered with layers of sand or gravel to filter the wastewater and avoid groundwater contamination, hence the name “irregular cesspools”.

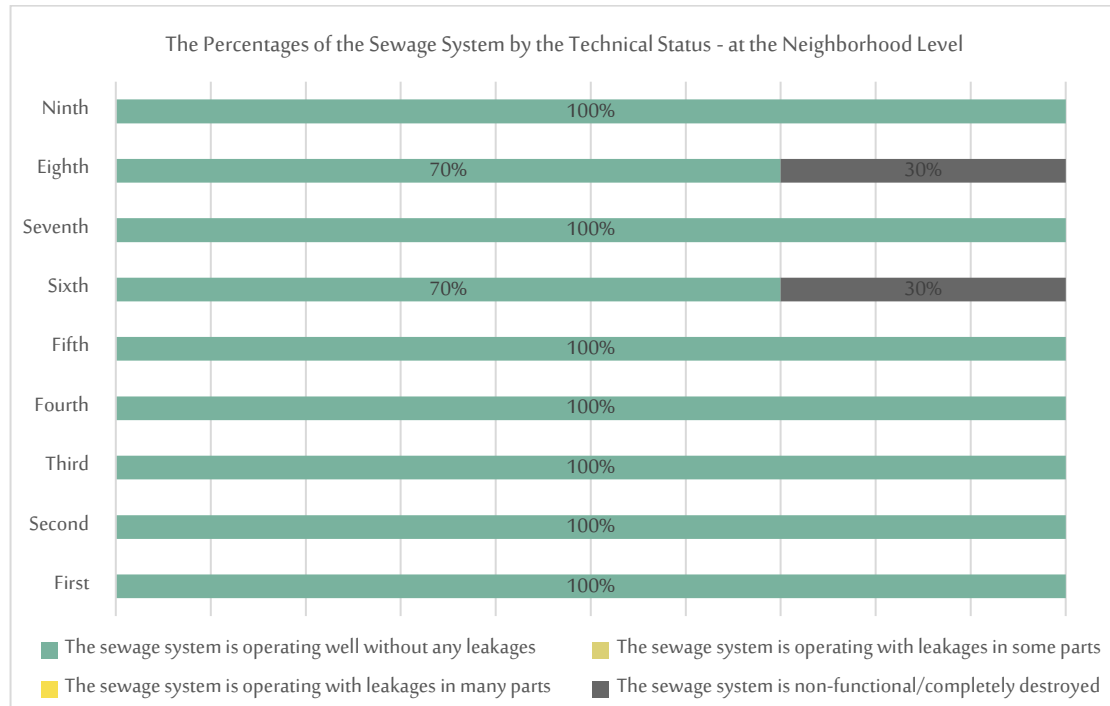
Figure 48 Mechanisms of Wastewater Disposal in Ein Issa City



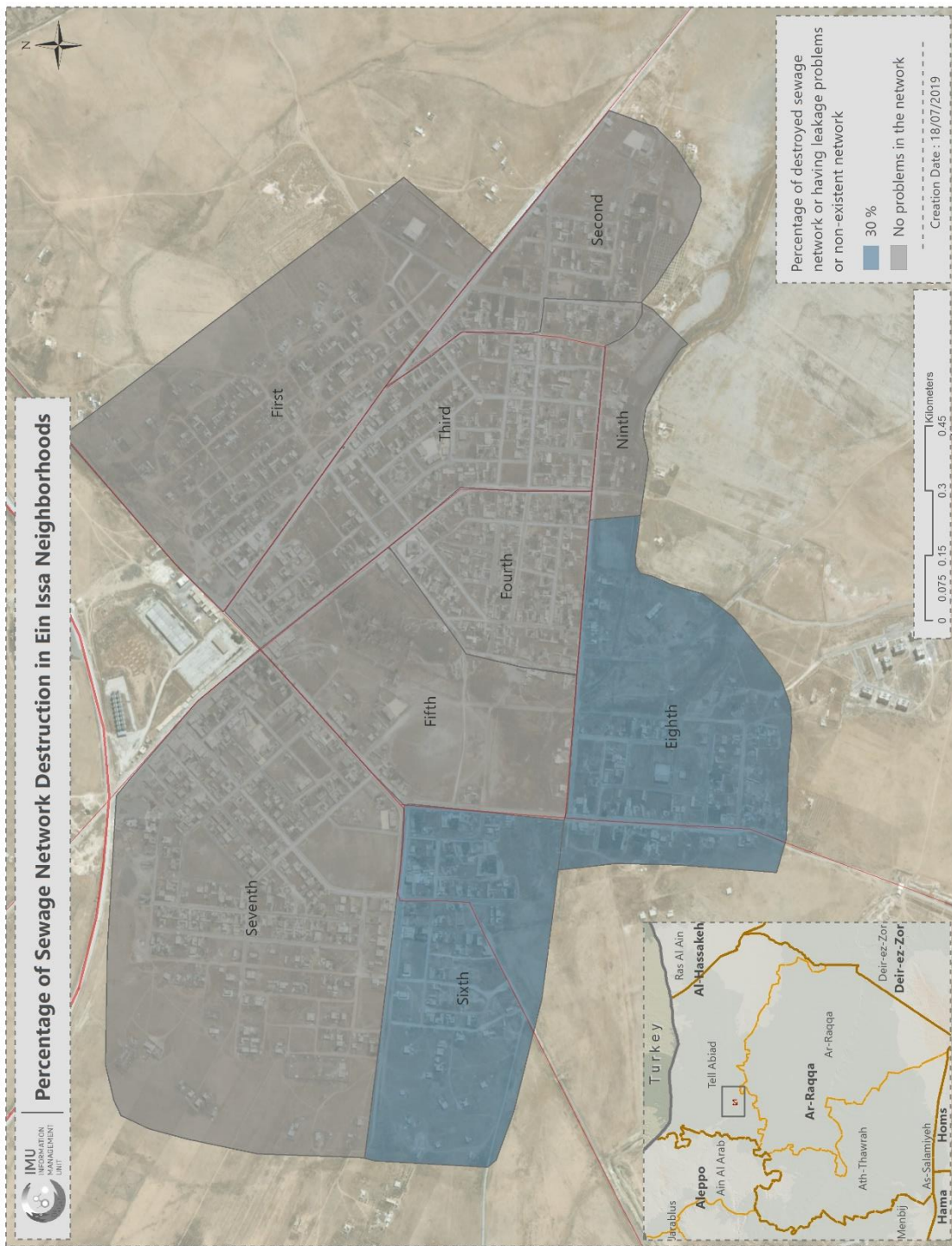
2. The Status of the Sewage System in Ein Issa City

The results revealed a leakage in the public sewage system in Ein Issa city by 30% in each of the Eighth and the Sixth neighborhoods, which affected parts disposed their wastewater into irregular cesspools. There were no damages in the other neighborhoods of the city as several organizations provided maintenance/repairs for the sewage system.

Figure 49 The Technical Status of the Sewage System in Ein Issa City at the Neighborhood Level



Map 29 The Technical Status of the Sewage System in Ein Issa City at the Neighborhood Level



Eighth: Electricity in Ein Issa City

The information sources confirmed that several international organizations installed a new electricity grid within most neighborhoods of Ein Issa city; however, abandoned housings needed to be connected to the public grid. The city had six functional electricity converters (boost converters to step up the voltage in the public electricity grid); four of which were vertical pad-mounted with a capacity of 1,000 KVA and two of them were ground pad-mounted with a capacity of 5,000 KVA each. All of the city’s converters were functional and needed periodic maintenance only. Electricity was supplied most of the day in Ein Issa city as it included multiple military bases. The so-called Syrian Democratic Council (MSD) of the PKK imposed monthly fees of 2,500 SYP per housing (an equivalent to USD 4).

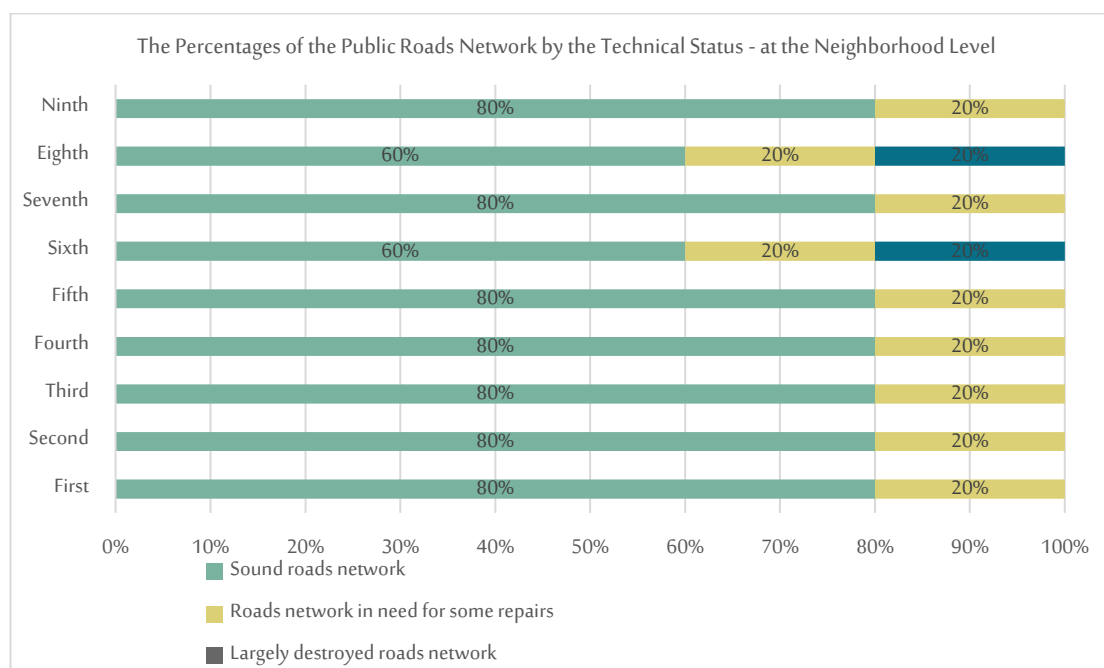
Table 55 Electricity Converters in Ein Issa City

Name of Neighborhood	Type of Converter	Technical Status	Capacity	Needs
First Neighborhood	Vertical pad-mounted	Functional	1,000	Periodic maintenance
Third Neighborhood	Vertical pad-mounted	Functional	1,000	Periodic maintenance
Fifth Neighborhood	Ground pad-mounted	Functional	5,000	Periodic maintenance
Sixth Neighborhood	Vertical pad-mounted	Functional	1,000	Periodic maintenance
Seventh Neighborhood	Vertical pad-mounted	Functional	1,000	Periodic maintenance
Eighth Neighborhood	Ground pad-mounted	Functional	5,000	Periodic maintenance

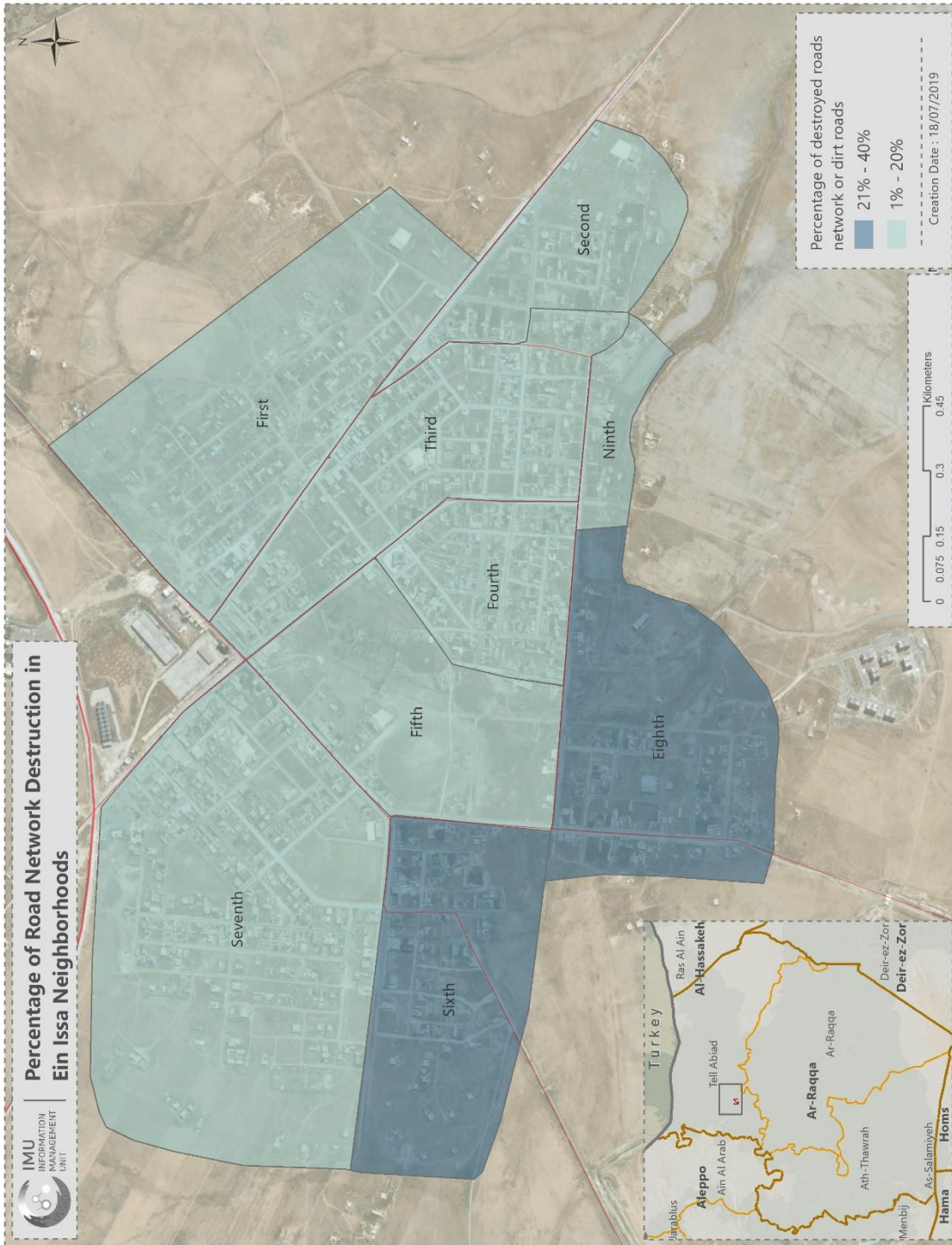
Ninth: Public Roads in Ein Issa City

The results demonstrated that the roads in all neighborhoods of Ein Issa city suffered from damages ranging between 20-40%. The highest percentages of damage were found in the Eighth and the Sixth neighborhoods, each of which contained dirt roads by 20%.

Figure 50 The Technical Status of the Roads Network in Ein Issa City at the Neighborhood Level



Map 30 Destruction in the Roads Network in Ein Issa City at the Neighborhood Level



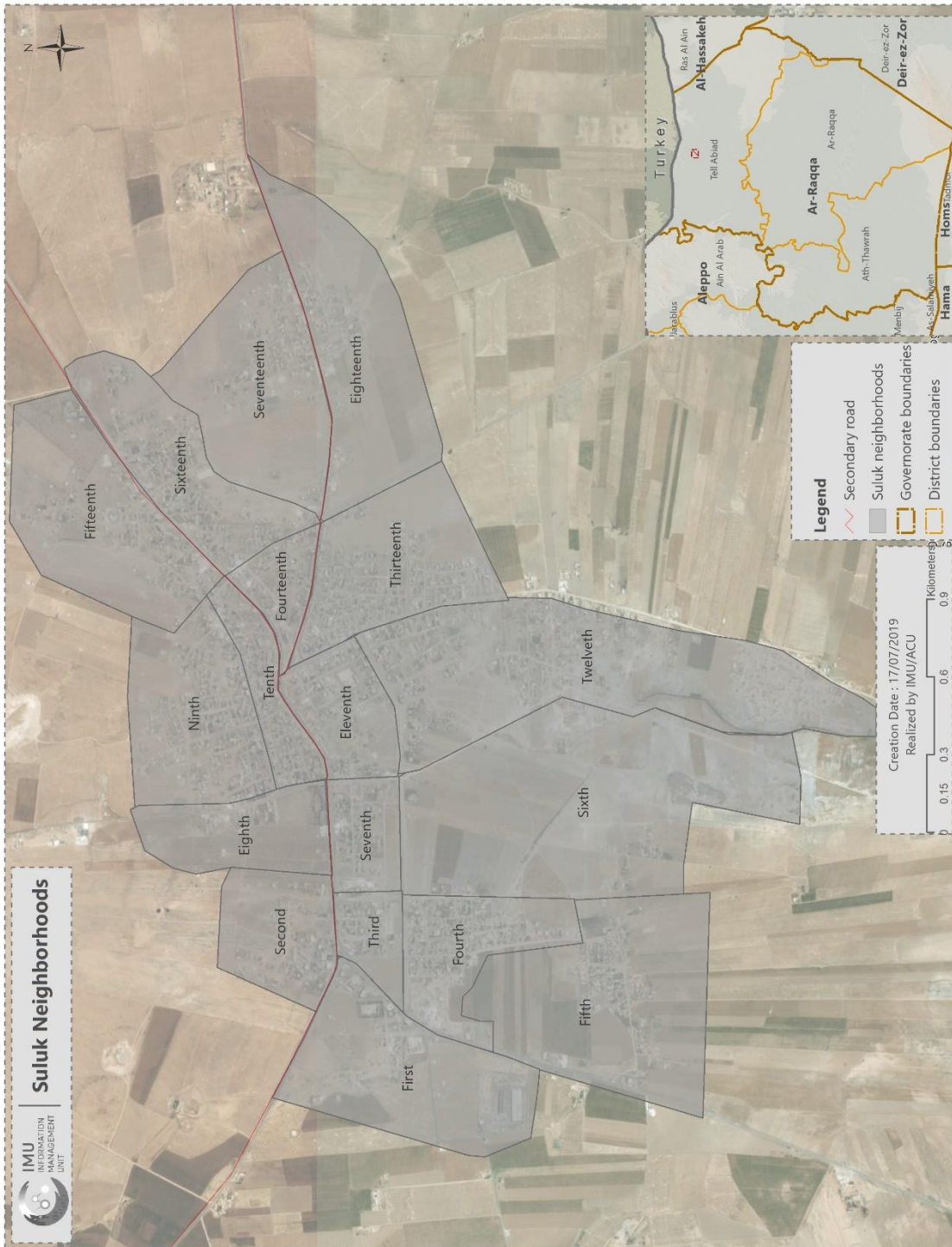
SECTION X: SULUK CITY

First: The Neighborhoods of Suluk City

- 1- **First Neighborhood:** it stretches between Tell Abiad-Suluk road on the north, agricultural lands on the west and the grain silos, the health center, the political party and some schools on the south. Its housings are composed of a single storey “known as traditional courtyard houses” and its residents are Syrian Arabs whose living conditions are average. The percentage of destruction is very little there.
- 2- **Second Neighborhood:** or Al-Nahyeh neighborhood. It stretches from Tell Abiad-Suluk road, the sub-district center and the municipality on the south to Karm Az-Zaitoun on the east and is bordered by agricultural lands on the north. Most of its buildings are governmental departments, and its housings are composed of a single storey “known as traditional courtyard houses”. Its residents are Syrian Arabs, whose living conditions are good, and the percentage of destruction is very little there.
- 3- **Third Neighborhood:** or Al-Ghabeen neighborhood. It stretches from Ar-Raqqa-Suluk road and Al-Nahyeh roundabout on the west towards the main street on the east, and from the southern ring-road on the south to the municipality road on the north. Its housings are composed of a single storey “known as traditional courtyard houses”, and some of them are luxurious houses “villas”. The percentage of destruction there is very little, and the residents are Syrian Arabs, whose living conditions are good.
- 4- **Fourth Neighborhood:** or Al Magat neighborhood. Its housings are composed of a single storey “known as traditional courtyard houses”. The percentage of destruction there is very little, and the residents are Syrian Arabs, whose living conditions are good average.
- 5- **Fifth Neighborhood:** it stretches from Al Magat neighborhood on the north to the agricultural lands on the south and Ar-Raqqa-Suluk road on the west. Its housings are composed of a single storey “known as traditional courtyard houses”. The percentage of destruction there is very little, and the residents are Syrian Arabs, whose living conditions are good average.
- 6- **Sixth Neighborhood:** Its housings are composed of a single storey “known as traditional courtyard houses”, in addition to some mud housings too. The percentage of destruction there is very little, and the residents are Syrian Arabs, whose living conditions are deteriorated.
- 7- **Seventh Neighborhood:** or Al-Hmeileh neighborhood. It stretches from the Directorate of agriculture till the sheep market. Its housings are composed of a single storey “known as traditional courtyard houses” and it includes the building of the Directorate of Agriculture. The percentage of destruction there is very little, and the residents are Syrian Arabs, whose living conditions are good.
- 8- **Eighth Neighborhood:** it stretches from Karm Az-Zaitoun on the west to the garage on the east and bordered by agricultural lands on the north and the sub-district’s center on the south. Its housings are composed of a single storey “known as traditional courtyard houses”. The percentage of destruction there is very little, and the residents are Syrian Arabs.

- 9- **Ninth Neighborhood:** or Al-Badu neighborhood. Its housings are composed of a single storey “known as traditional courtyard houses”. The percentage of destruction there is very little. The residents are Syrian Arabs, in addition to 10 houses the belong to Syrian Kurds, and their living conditions are average.
- 10- **Tenth Neighborhood:** it has the Educational Assembly and its housings are composed of a single storey “known as traditional courtyard houses” and some are luxurious “villas”. The percentage of destruction there is very little, and the residents are Syrian Arabs, whose living conditions are good.
- 11- **Eleventh Neighborhood:** it is located between the gas station and the graveyard, considered as the city center and has the main market. Its housings are composed of a single storey “known as traditional courtyard houses” and some of its buildings are old. The percentage of destruction there is little, and the residents are Syrian Arabs, whose living conditions are average.
- 12- **Twelfth Neighborhood:** it has a number of schools, in addition to the cultural center. Its housings are composed of a single storey “known as traditional courtyard houses”. The percentage of destruction there is little, and the residents are Syrian Arabs, whose living conditions are average.
- 13- **Thirteenth Neighborhood:** it is located near the road linking Suluk city and Kantari town. Its housings are composed of a single storey “known as traditional courtyard houses”. The percentage of destruction there is little, and the residents are Syrian Arabs, whose living conditions are average.
- 14- **Fourteenth Neighborhood:** it is located in the middle of the city. Its housings are multi-storey buildings. The percentage of destruction there is very little, and the residents are Syrian Arabs, whose living conditions are good.
- 15- **Fifteenth Neighborhood:** it is bordered by Suluk-Ras El Ein road on the south. Its housings are multi-storey buildings and it contains a number of commercial shops. The percentage of destruction there is very little, and the residents are mostly Syrian Arabs, whose living conditions are good.
- 16- **Sixteenth Neighborhood:** it is bordered by Suluk-Ras El Ein road from the north. Its housings are new yet scattered multi-storey buildings. The residents are Syrian Arabs, whose living conditions are good, and there is no destruction in the neighborhood.
- 17- **Seventeenth Neighborhood:** it is bordered by the road linking Suluk city and Zaydi town from the south. Its housings are composed of a single storey “known as traditional courtyard houses”. The percentage of destruction there is little, and the residents are Syrian Arabs, whose living conditions are average.
- 18- **Eighteenth Neighborhood:** it is bordered by the road linking Suluk city and Kantari town from the west. Its housings are composed of a single storey “known as traditional courtyard houses” and it contains a number of commercial shops. The percentage of destruction there is little, and the residents are Syrian Arabs, whose living conditions are average.

Map 31 The Neighborhoods of Suluk City

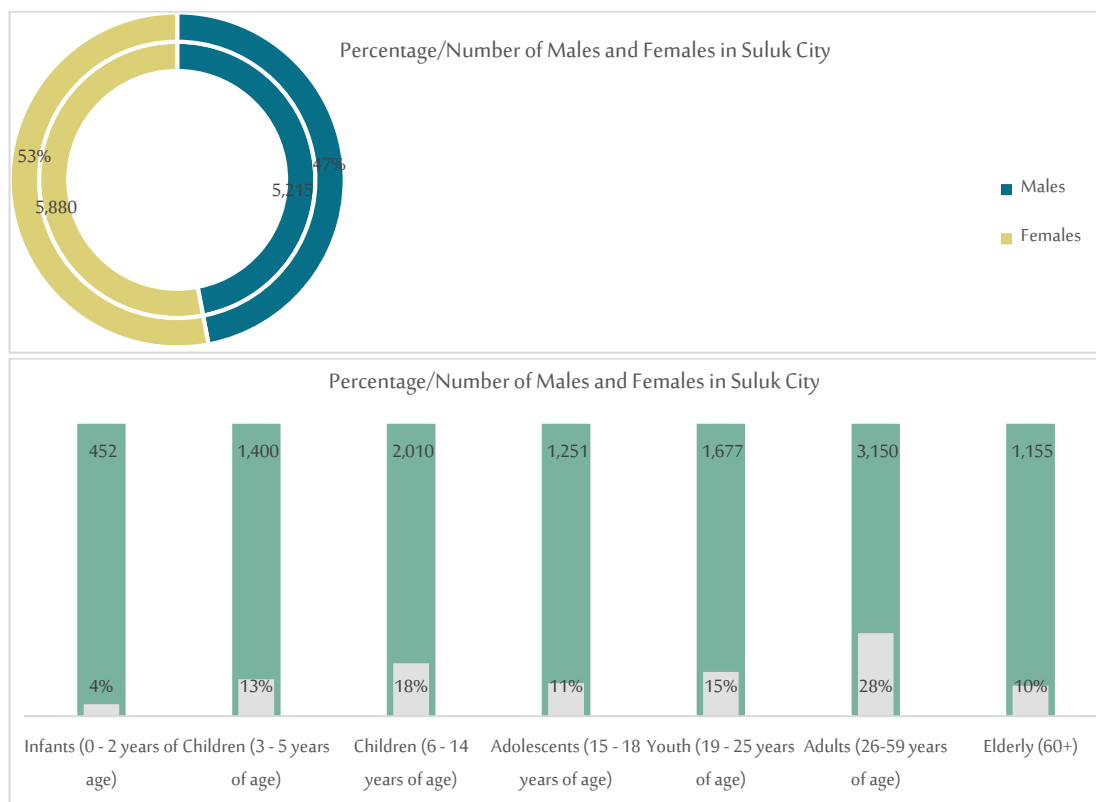


Second: The Demographic Composition of Suluk City

1. The Population Census and Age Groups in Suluk City

According to population statistics conducted by the IMU enumerators, of the ACU, Suluk city had a population of 11,095 people in June 2019; of which females constituted 53% (5,880 females) and males constituted 47% (5,215 males).

Figure 51 The Population Census by Gender and Age Groups in Suluk City



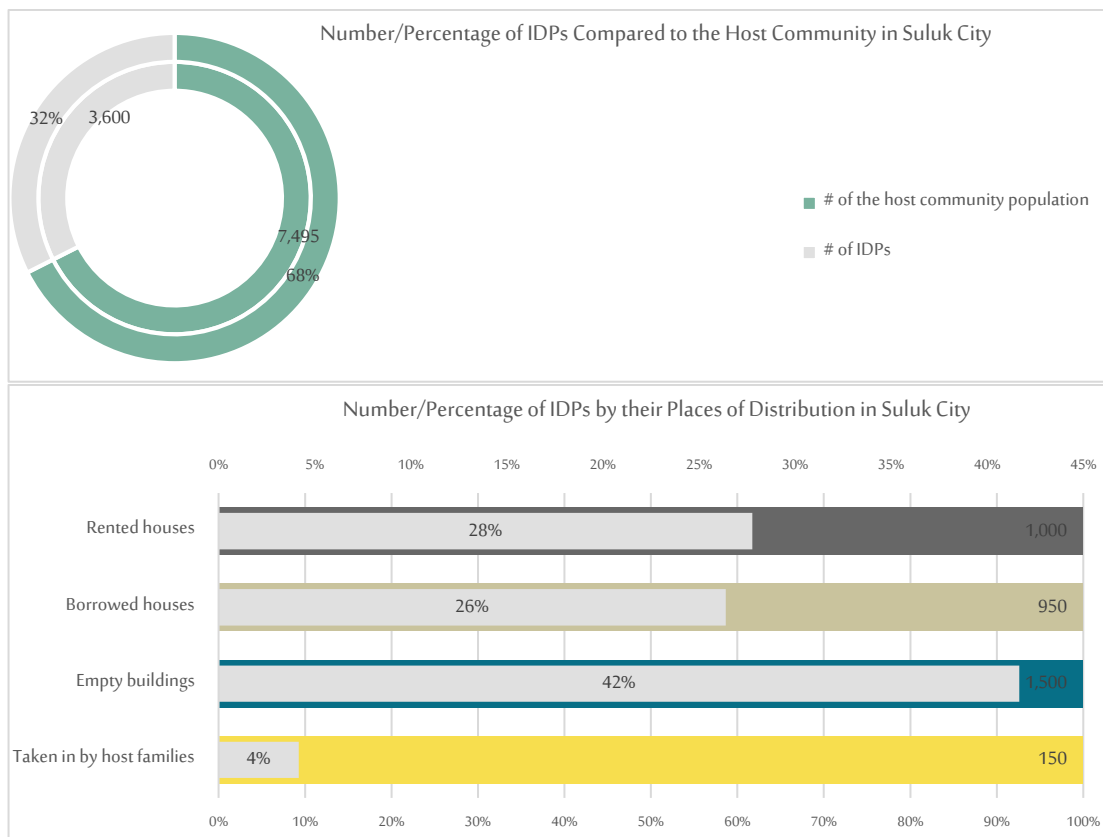
The age group of infants constituted 4% (452 infants) of the city’s population, children between 3-5 years of age formed 13% (1,400 children) and children between 6-14 years of age – the primary school-aged children - formed 18% (2,010 children) of the city’s population.

Adolescents between 15-18 years of age constituted 11% (1,251 adolescents), youth between 19-25 years of age formed 15% (1,677 young people), adults between 26-59 years of age formed 28% (3,150 adults) and elderly people over 60 years of age formed 10% (1,155 people) of the city’s population.

2. The IDPs and their Distribution Places in Suluk City

In Suluk city, there were 3,600 IDPs, constituting 32% of the city's population, and 7,495 host community members, constituting 68% of the city's population.

Figure 52 IDPs and their Distribution Places in Suluk City



According to the regime's estimated statistics of the population in 2011, Suluk city contained 9,309 people at that time. The natural population growth shows that over 1,000 of the city's population were displaced from their city. Suluk city had 3,600 IDPs, mostly from the countryside of Deir-ez-Zor and Ar-Raqqa governorates and Aleppo eastern countryside. The study results showed that 42% (1,500 IDPs) of IDPs in the city stayed in empty buildings; some in governmental buildings and others in partially constructed buildings. 28% (1,000 IDPs) stayed in rented housings, 26% (950 IDPs) stayed in borrowed houses, whose owners were displaced from the city and lent them to arriving IDPs for free, and the remaining 4% (150 IDPs) of IDPs were taken in by host families.

Third: The Health Sector in Suluk City

1. Entities Supervising and Supporting the Medical Sector in Suluk City

Suluk city included two basic medical points only; a privately-owned hospital, which was not supported by any entity, and the publicly-owned Suluk dispensary, which was supported by Save the Children (international organization) and supervised by the Health Office of the PKK.

Table 56 Information of Medical Centers in Suluk City

Name of Hospital/Dispensary	Supervising Entity	First Donating Entity	Second Donating Entity
Suluk Al-Ahli Hospital	Private owner	None	None
Suluk Dispensary	Health Office - PKK	Save the Children	None

2. Medical Cadres and Specializations in Suluk City

Hospitals and dispensaries in Suluk city contained 13 male doctors only. The medical specializations in Suluk Al-Ahli private hospital were limited to general surgery, pediatrics, internal medicine and gynecology, whereas Suluk dispensary had doctors specialized in gynecology, pediatrics, internal medicine and general medicine. There were 12 male nurses and 15 female nurses in the city's hospitals and dispensaries, in addition to 5 technicians from various specializations, 4 administrators and 4 cleaning/maintenance staff.

Table 57 Information of Medical Cadres in Suluk City

Name of Hospital/Dispensary	Total # of Physicians	Medical Specialties	# of Female Physicians	# of Male Nurses	# of Female Nurses	# of Technicians	# of Administrators	# of Cleaning/Maintenance Staff
Suluk Al-Ahli Hospital	9	General surgery Pediatrics Internal medicine Gynecology	0	8	13	4	2	3
Suluk Dispensary	4	Gynecology Pediatrics Internal medicine General medicine	0	4	2	1	2	1
Total	13		0	12	15	5	4	4

3. Equipment of Medical Centers in Suluk City

Suluk Al-Ahli Hospital contained two equipped operation rooms and 20 patient beds, but no CT scan machine or dialysis equipment. The hospital had a generator consuming 10 liters of diesel per working hour. Suluk Dispensary had a generator consuming 5 liters of diesel per working hour. The information sources confirmed that electricity became available through the public electricity grid for most for the day and generators were not relied upon during the reporting period.

Table 58 Equipment of Medical Centers in Suluk City

Name of Hospital/Dispensary	# of Equipped Operation Rooms	# of Patient Beds	Is there a CT Scan?	Is the Hospital Equipped for Dialysis?	# of Generators?	Quantity of Diesel Needed for the Generators per Working Hour
Suluk Al-Ahli Hospital	2	20	No	No	1	30
Suluk Dispensary	-	-	No	No	1	5
Total	2	20	0	0	2	35

4. Number of Beneficiaries of Medical Services in Suluk City

During June 2019, 650 patients were admitted to and 68 surgeries were conducted in the privately-owned Suluk Al-Ahli hospital, which provided remunerated services and hence the little number of its patients. Suluk dispensary provided free services to the city's residents and received 1,600 patients in one month.

Table 59 Number of Beneficiaries of Medical Centers in Suluk City

Name of Hospital/Dispensary	# of Patients during a One-month Period	# of Operations during a One-month Period	Cases of Free Service
Suluk Al-Ahli Hospital	650	68	All cases are paid for by patients
Suluk Dispensary	1,600	-	All cases are free of charge
Total	2,250	68	

5. The Needs of the Medical Centers in Suluk City

Suluk Al-Ahli Hospital needed a CT scan machine and medications, whereas Suluk Dispensary needed s CT scan machine, contracting more specialized doctors, a laboratory and an ambulance.

Table 60 The Needs of the Medical Centers in Suluk City

Name of Hospital/Dispensary	Needs
Suluk Al-Ahli Hospital	CT scan machine - Medications
Suluk Dispensary	CT scan machine – Specialized doctors – Laboratory – Ambulance

Fourth: Bakeries in Suluk City

1. Number of Bakeries and Price of Bread in Suluk City

Suluk city had four bakeries; one of which was publicly-owned and the rest were privately-owned. All the bakeries were functional and producing subsidized bread which cost 100 SYP (an equivalent to USD 0.16) per 8 loaves (i.e. 1 kg). Al-Baladiya public bakery was supervised by the PKK’s Committee of Bakeries, Al-Hmeileh and Al Magat bakeries were supervised by investors who rented the bakeries from their original owners, whereas Al-Babat bakery was supervised by its owners. Some grocery stores sold non-subsidized bread bags for 125 SYP (an equivalent to USD 0.2). Information sources confirmed that the markets sold the same subsidized bread as the bakeries disposed their surplus production through stores.

Figure 53 Number of Bakeries and Price of Bread in Suluk City



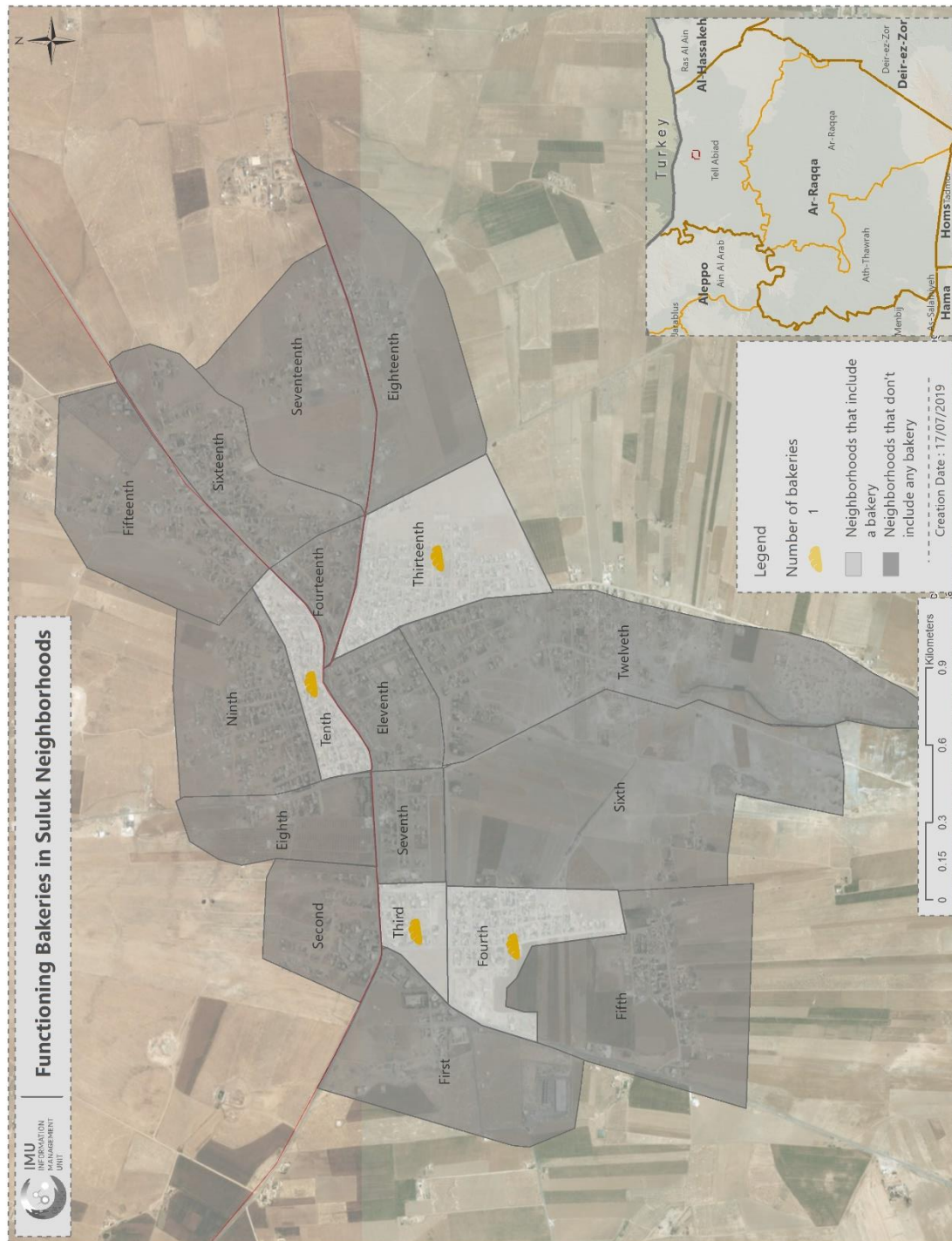
2. Entities Supervising the Bakeries and their Cadres in Suluk City

All bakeries in Suluk city were supported with fuel and flour by the PKK’s Committee of Bakeries at reduced prices in return of producing bread and selling it at a reduced price (100 SYP per 8 loaves; an equivalent to 1 kg).

Table 61 Bakeries in Suluk City and Entities Supervising them

Name of Bakery	Location/Neighborhood	Owner/Supervising Entity	Subsidizing Entity	Type of Subsidization	# of Administrators	# of Technicians	# of Workers
Al-Baladiya	Third neighborhood	PKK – Committee of Bakeries	Committee of Bakeries	Fuel - Flour	1	2	7
Al-Hmeileh	Thirteenth neighborhood	Investor	Committee of Bakeries	Fuel - Flour	1	1	8
Al Magat	Fourth neighborhood	Investor	Committee of Bakeries	Fuel - Flour	1	1	7
Al-Babat	Tenth neighborhood	Private owner	Committee of Bakeries	Fuel - Flour	1	1	6
Total					4	5	28

Map 32 Number of Functional Bakeries in Suluk City by Neighborhoods



1. The Bakery's Production Capacity and the Bread's Production Cost in Suluk City

The actual productive capacity of bakeries in Suluk city ranged between 4-6 tons per shift; however, the total production of those bakeries did not exceed 14.5 tons at the time of preparing this report as Al Magat was the only bakery operating with its full capacity. The cost of producing 1 ton of bread (without the flour's cost) in subsidized bakeries was 25,000 SYP (an equivalent to USD 42).

Table 62 The Bakeries' Production Capacity and the Bread's Production Cost in Suluk City

Name of Bakery	Actual Productive Capacity of the Bakery/ton	Current Quantity of Production	# of Production Lines in the Bakery	Cost of Producing 1 ton of Bread/USD	Where does the Bakery get its Operational Expenses from?	Where does the Bakery get its Flour from?	Beneficiaries of Bread	Maintenance Work
Al-Baladiya	6	4	2	25,000	Committee of Bakeries	Committee of Mills	Residents of the city and neighboring villages	Electricity generator – Engine belts - Fermentation conveyor belts
Al-Hmeileh	6	3.5	2	25,000	From selling bread	Committee of Mills	Residents of the city and neighboring villages	Periodic maintenance
Al Magat	4	4	2	25,000	From selling bread	Committee of Mills	Residents of the city and neighboring villages	Electricity generator - Belts
Al-Babat	4	3	1	25,000	From selling bread	Committee of Mills	Residents of the city and neighboring villages	Periodic maintenance
Total	20	14.5	7					

The actual productive capacity of a bakery means the quantity of bread produced per shift. The bakery's capacity varies by its size and equipment and depends on multiple standards and most importantly the number of production lines. The more the production lines, the higher the bakery's capacity. Similarly, the larger the fermentation conveyor belts and the oven, the higher the bakery's capacity.

The cost of producing 1 ton of bread (without the flour's cost) was 25,000 SYP (an equivalent to USD 42) in the bakeries of Suluk city as the Committee of Bakeries subsidized them with needed fuel and flour at a reduced price; the cost of distributed fuel was 75,000 SYP per 1 liter (an equivalent to USD 0.125) and the cost of distributed flour at a reduced price was 70,000 SYP (an equivalent to USD 117), whereas the other expenses (yeast, salt, water, wages of workers and maintenance expenses) were secured from selling bread.

According to the MPI⁵ issued by the IMU, the market price of fuel in Ar-Raqqa governorate ranged between 175-387 SYP (an equivalent to USD 0.29-0.77) per 1 liter, and the market price of flour was 265 SYP (an equivalent to USD 0.44) per 1 kg. Information sources confirmed that 1 ton of flour cost between USD 345-400 in the market, while the other expenses were secured from selling bread.

Fifth: Schools in Suluk City

1. Information on Schools in Suluk City

Suluk city had four functional gender-mixed schools teaching female and male students from first to sixth grade only (or what used to be formerly known as primary level). There were no upper or lower secondary schools (from 7th to 12th grades) in the city. All those schools had one morning shift and their accommodation capacity was 1,640 students per shift.

Table 63 General Information on Schools in Suluk City

Name of School	Neighborhood	Operational Status	Condition of School Building	Accommodation Capacity (per Shift)	Gender-mixed?	# of Shifts	Educational Stages Taught
Eastern Suluk	Fourteenth neighborhood	Functional	Not destroyed	360	Gender-mixed	One shift	1-6
Northern Suluk	Tenth neighborhood	Functional	Not destroyed	400	Gender-mixed	One shift	1-6
Omar ibn Al-Khattab	Twelfth neighborhood	Functional	Not destroyed	400	Gender-mixed	One shift	1-6
Western Suluk Primary School	First neighborhood	Functional	Not destroyed	480	Gender-mixed	One shift	1-6
Total				1,640	0	0	0

2. The Status of Schools in Suluk City

24 classrooms in functional schools in Suluk city were equipped and used for educational purposes, whereas 15 classrooms needed repairs.

17 windows in the city's schools needed repairs and 15 windows needed replacement as they were completely destroyed and irreparable.

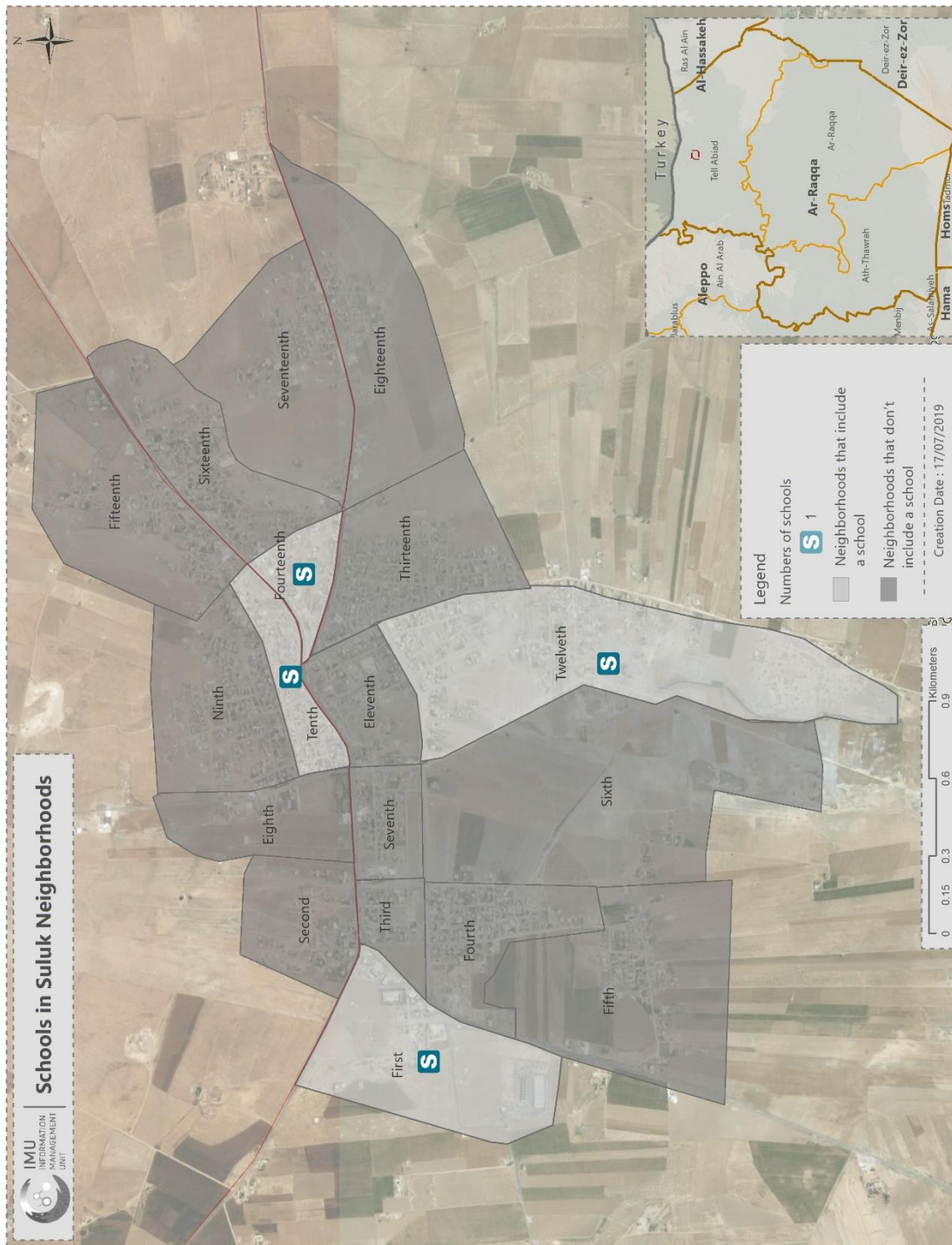
Four doors in the city's schools needed repairs, and there were no completely destroyed irreparable doors that needed replacement.

Additionally, all toilets in the city's schools were functional and did not need repairs. 22 of the schools' desks needed repairs, 23 desks needed replacement for being largely destroyed and irreparable and all schools suffered from a lack of student desks.

Table 64 Information on the Technical Status of School Facilities in Suluk City

Name of School	# of Rooms in Need for Repairs	# of Windows in Need for Replacement	# of Windows in Need for Repairs	# of Doors in Need for Repairs	# of Doors in Need for Replacement	# of Toilets in Need for Simple Repairs	# of Toilets in Need for Full Rehabilitation	# of Desks in Need for Repairs	# of Desks in Need for Replacement
Eastern Suluk	3	3	4	0	0	0	0	0	0
Northern Suluk	4	4	6	1	0	0	0	12	15
Omar ibn Al-Khattab	3	3	3	2	0	0	0	7	5
Western Suluk Primary School	5	5	4	1	0	0	0	3	3
Total	15	15	17	4	0	0	0	22	23

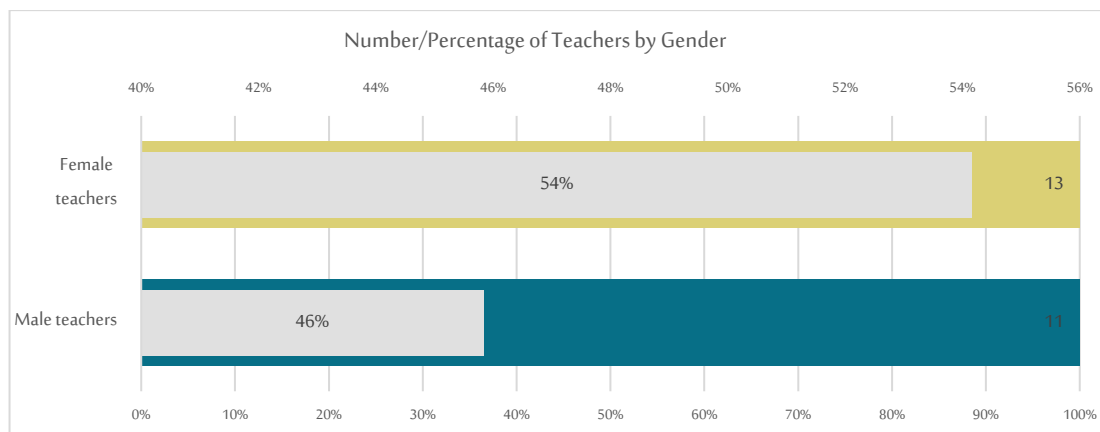
Map 33 Numbers of Functional and Non-Functional Schools in Suluk City by Neighborhoods



3. Teaching Cadres in Suluk City

The schools in Suluk city included 24 teachers; 46% (11 teachers) of which were males and 54% (13 teachers) were females. All teachers in the city’s schools were monthly remunerated by the controlling party; the PKK.

Figure 54 Number/Percentage of Teachers by Gender in Suluk City



The results showed that all teachers in Suluk city’s schools were regular. Regular teachers are those who have already been in the teaching profession before the ongoing crisis, as assigned by the Syrian Directorate of Education under permanent contracts. After graduating from college or intermediate institute, they undergo a recruitment competition held by the Ministry of Education, and those who pass the competition sign permanent job contracts with the Ministry and are assigned as per their various specialisations. The teachers were remunerated by the controlling party, the PKK. The teacher’s average wage was 60,000 SYP monthly (an equivalent to USD 100).

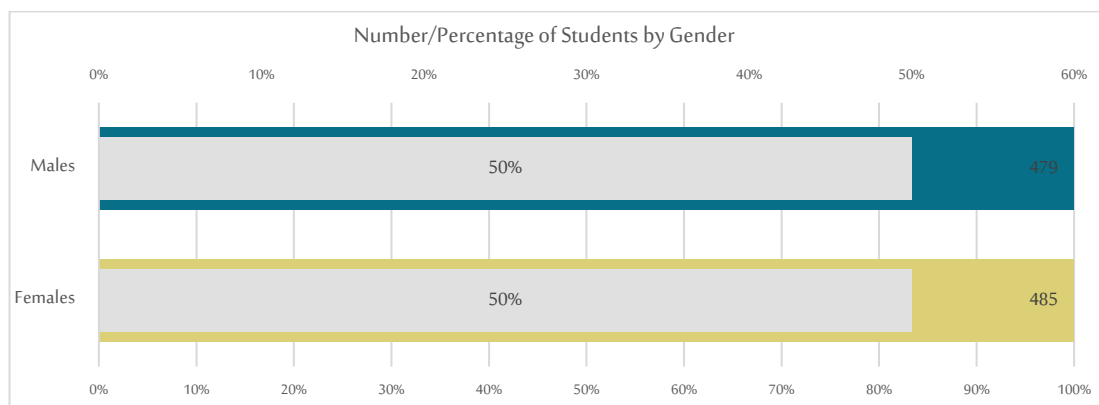
Table 65 Teaching Cadres in Suluk City

Name of School	# of Male Teachers (teaching is their profession)	# of Female Teachers (teaching is their profession)	# of Irregular Teachers	Total Remunerated Teachers (males & females)	Average Salary
Eastern Suluk	2	4	0	6	60,000
Northern Suluk	3	2	0	5	60,000
Omar ibn Al-Khattab	3	3	0	6	60,000
Western Suluk Primary School	3	4	0	7	60,000
Total	11	13		24	60,000

4. Students in Suluk City

The schools in Suluk city included 964 students; 50% (479 students) of which were males and 50% (485 students) were females.

Figure 55 Numbers of Students by Gender in Suluk City



The demographic statistics, conducted by the IMU’s enumerators in the ACU, demonstrated that the number of school-aged children in Suluk city was 3,261 children, whereas the number of students in the city’s schools was 964 students; which means that 70% of the city’s children were dropouts. It was also reported that the city’s schools taught primary stage only (from 1st to 6th grades), which means that all children in lower and upper secondary stages (from 7th to 12th stages) were dropouts.

Table 66 Information on Students by Gender in Suluk City

Name of School	# of Male Students	# of Female Students
Eastern Suluk	112	128
Northern Suluk	117	99
Omar ibn Al-Khattab	105	123
Western Suluk Primary School	145	135
Total	479	485

Sixth: Water in Suluk City

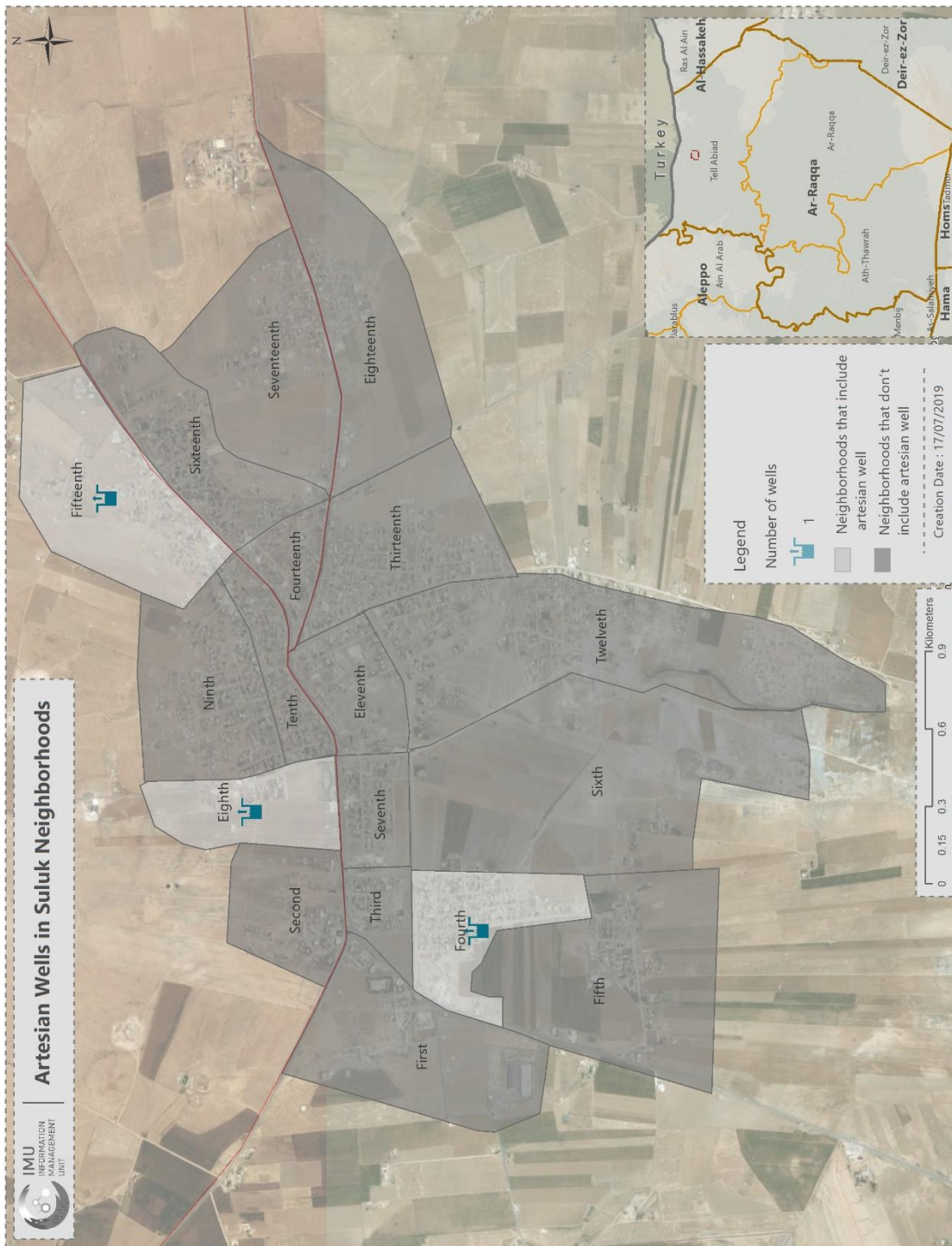
1. Artesian Wells in Suluk City

Suluk city had three artesian wells, known as public wells. The depth of the artesian wells is large which makes them more abundant when compared to surface wells; however, they need large submersible pumps and generator sets to operate the pumps. Those wells were powered by the public electricity grid when available and by their generator sets if electricity from the public grid was not available. The wells’ abundance ranged between 40-53 m³/h and the operational hours ranged between 6-8 hours daily. The information sources confirmed that the water of both Suluk and Al-Mukhtalita wells was drinkable and pumped directly into the public water network, whereas the water of Al-Ghabeen well was limestone, undrinkable, distributed by tankers and mostly used for hygiene and irrigation purposes.

Table 67 Artesian Wells in Suluk City

Name of Well/Well Owner	Location of Well	Donating Entity	Functional/Non-functional	Water Abundance m ³ /Hour	# of Operational Hours/Daily Average	Quality of Water in terms of Potability	Source of Energy	Change in the Water Rate
Suluk	Fifteenth Neighborhood	MSD - PKK	Functional	53	6	Drinkable	Public grid – Generator set	No
Al-Ghabeen	Fourth Neighborhood	MSD - PKK	Functional	40	8	Limestone water	Public grid – Generator set	No
Al-Mukhtalita	Eighth Neighborhood	MSD - PKK	Functional	40	6	Drinkable	Public grid – Generator set	No

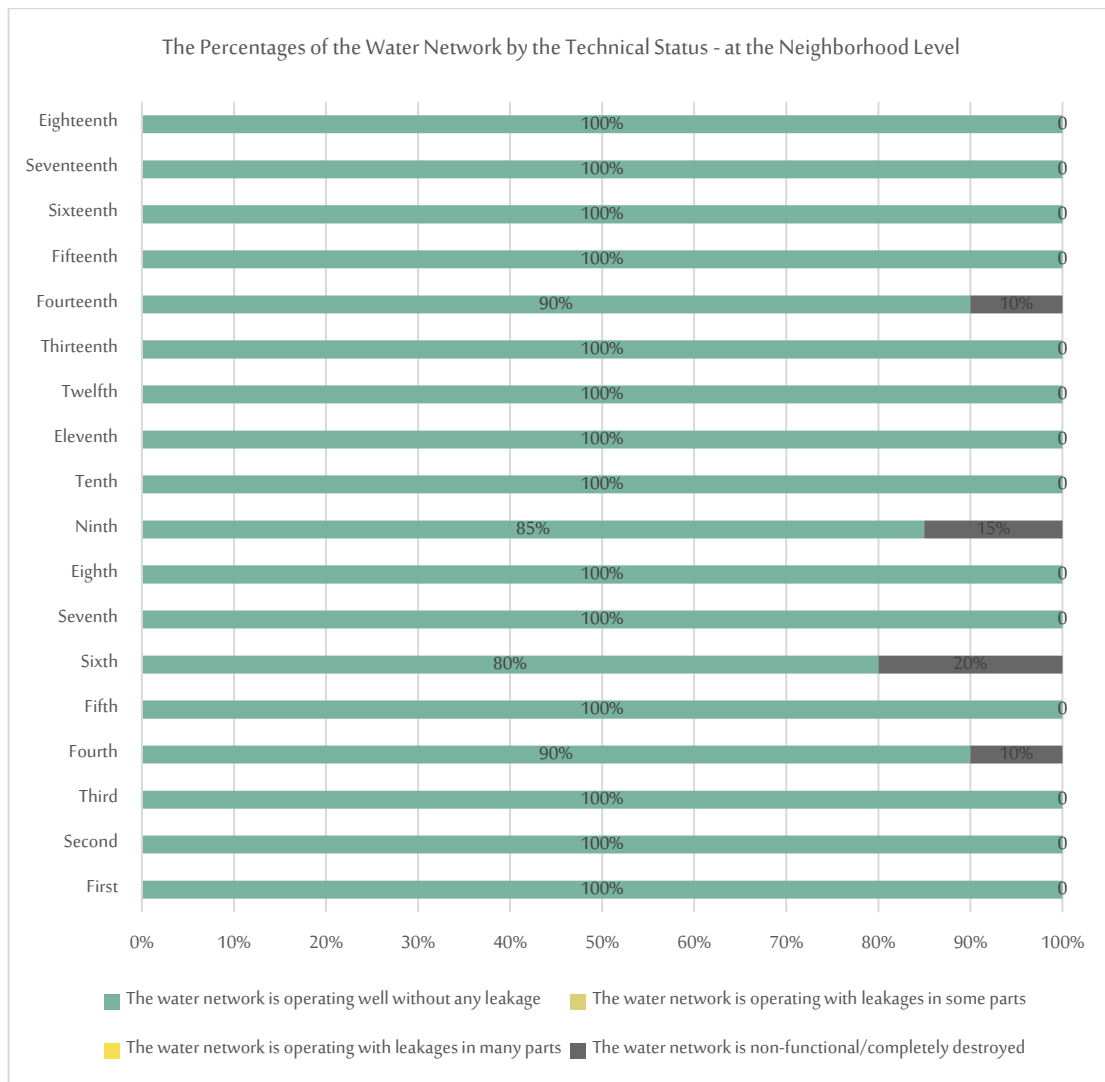
Map 34 Number of Artesian Wells in Suluk City by Neighborhoods



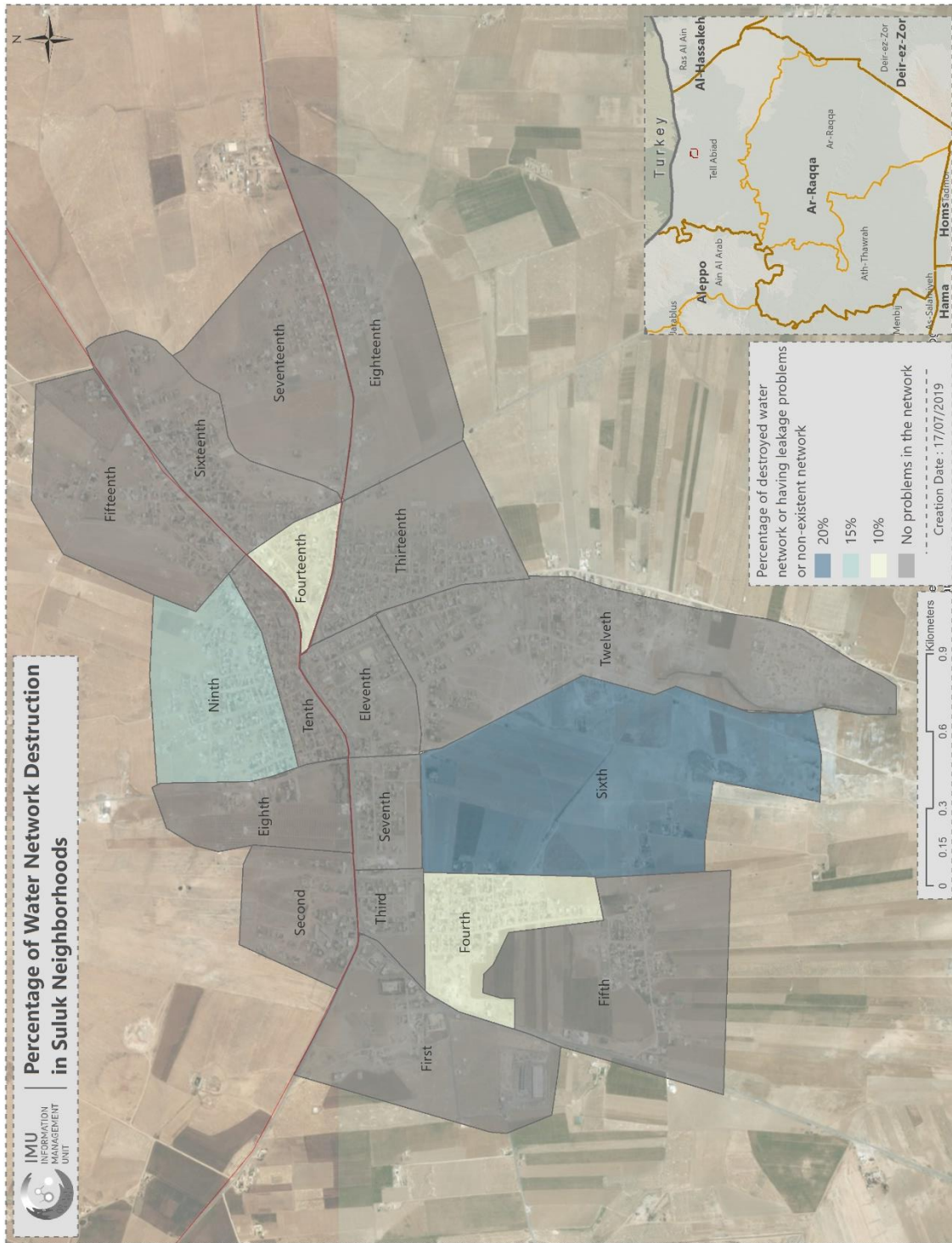
2. The Public Water Network in Suluk City

The study results demonstrated that the public water network was operating well without leakages in all of the city's neighborhoods except for four neighborhoods only; 20% of the water network in the Sixth neighborhood was completely destroyed, irreparable and needed replacement, 15% of the water network in the Ninth neighborhood was completely destroyed, and 10% of the water network in each of the Fourth and the Fourteenth neighborhoods was completely destroyed. There were water meters (to calculate the water consumption) in all of the city's housings; however, most of those meters were non-functional. The so-called MSD of the PKK collected 1,000 SYP monthly (an equivalent to USD 1.6) from every house supplied with water from the public network.

Figure 56 The Technical Status of the Water Network in Suluk City at the Neighborhood Level



Map 35 Destruction in the Water Network in Suluk City by Neighborhoods

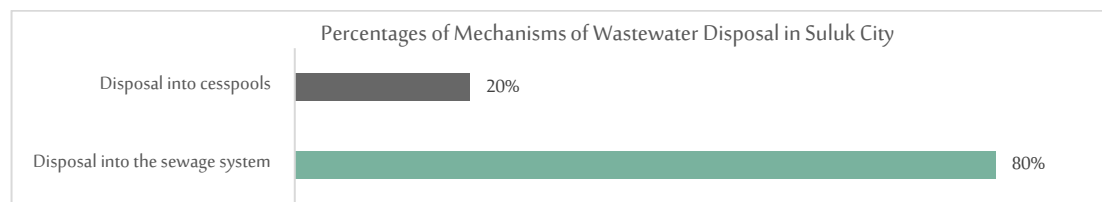


Seventh: The Sewage System in Suluk City

1. Mechanisms of Wastewater Disposal in Suluk City

20% of housings in Suluk city disposed their wastewater into irregular cesspools. Those housings spread in peripheral neighborhoods; which witnessed an urban expansion during the ongoing crisis, while no entity established any sewage systems for the new housings. It was mentioned that all cesspools were not covered with layers of sand or gravel to filter the wastewater and avoid groundwater contamination, hence the name “irregular cesspools”. On the other hand, 80% of the city’s housings disposed their wastewater into the public sewage system.

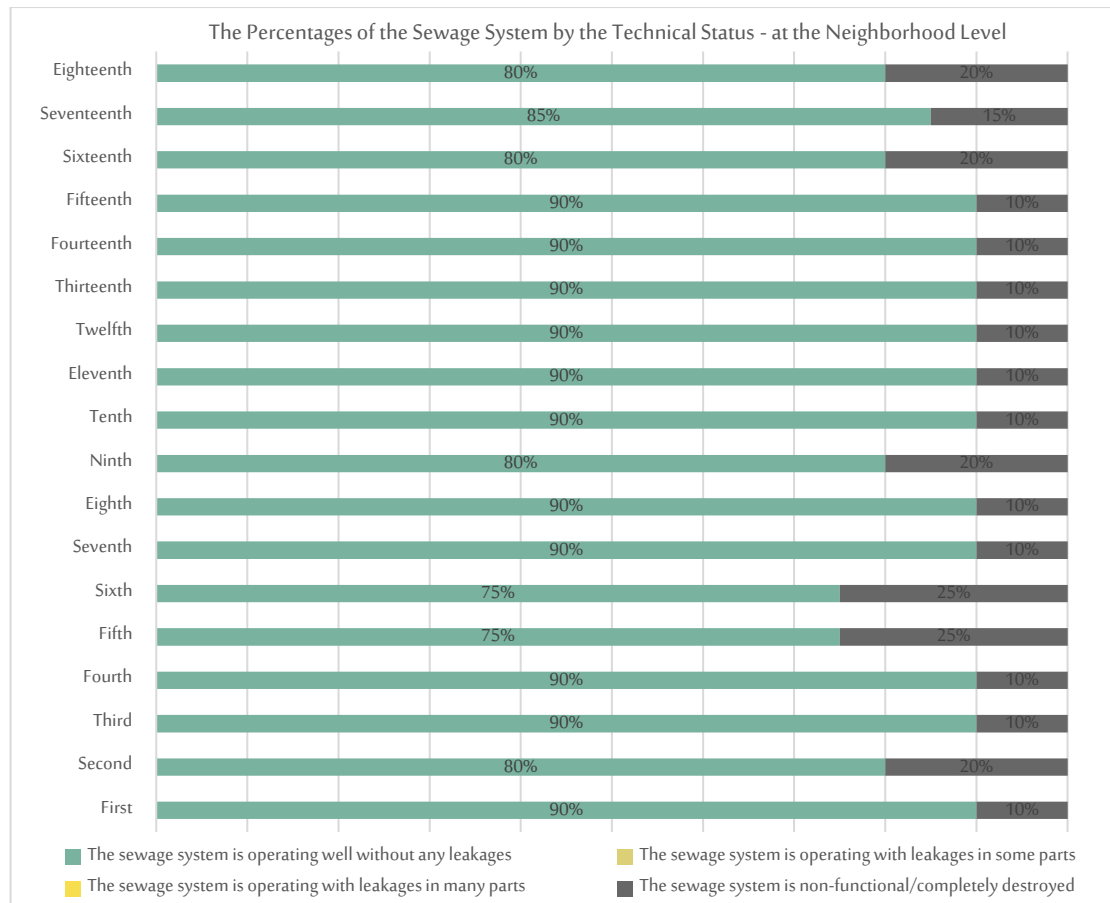
Figure 57 Mechanisms of Wastewater Disposal in Suluk City



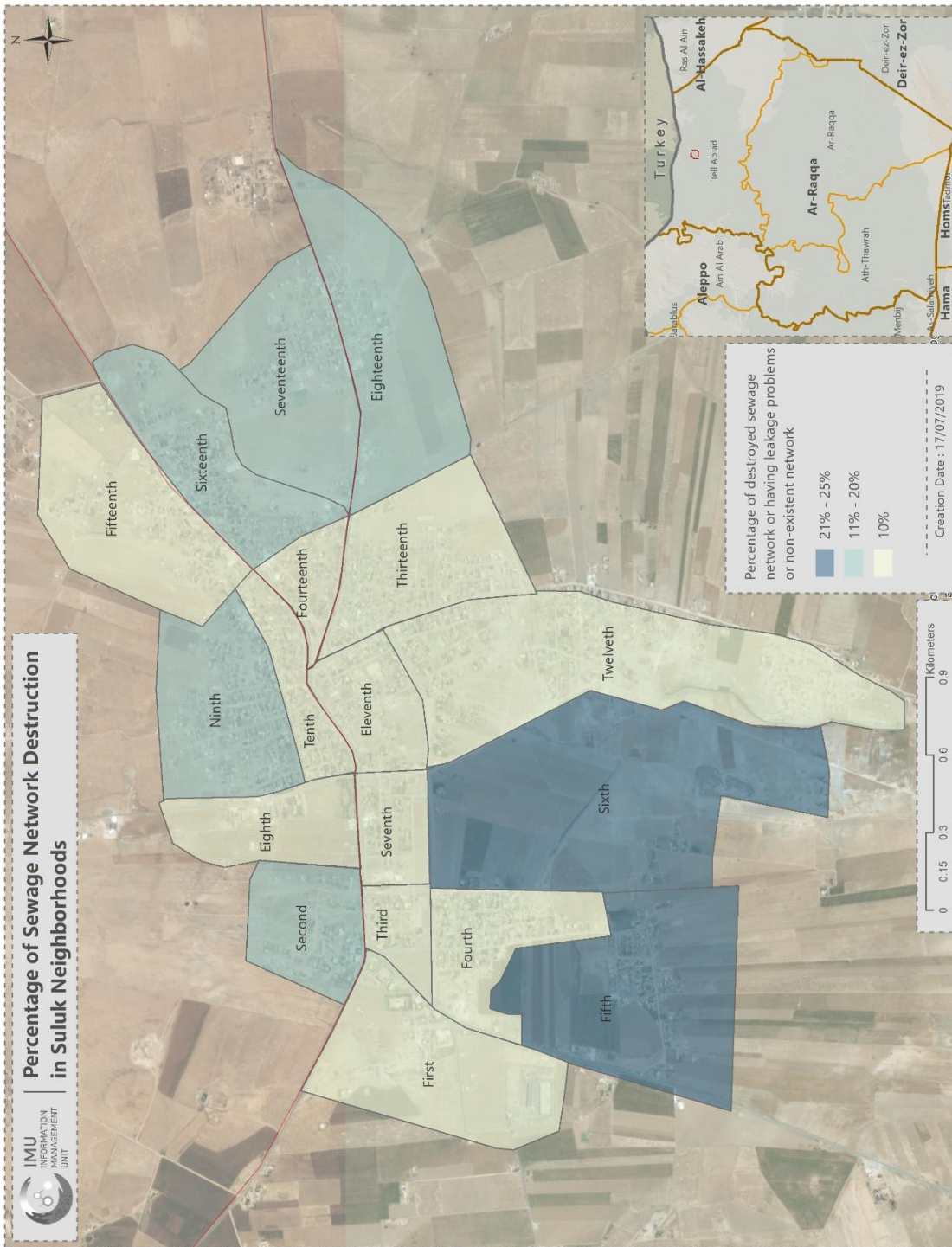
2. The Status of the Sewage System in Suluk City

The results revealed a leakage in the public sewage system in all neighborhoods of Suluk city in varying percentages. The highest percentages of destruction in the sewage system were found in the Fifth and the Sixth neighborhoods by 25%. Each of the Second, the Ninth, the Sixteenth and the Eighteenth neighborhoods suffered from destruction by 20% in their sewage system, whereas the sewage systems in the other neighborhoods were destroyed by 10%. Those destroyed parts were irreparable and needed replacement.

Figure 58 The Technical Status of the Sewage System in Suluk City at the Neighborhood Level



Map 36 The Technical Status of the Sewage System in Suluk City at the Neighborhood Level



Eighth: Electricity in Suluk City

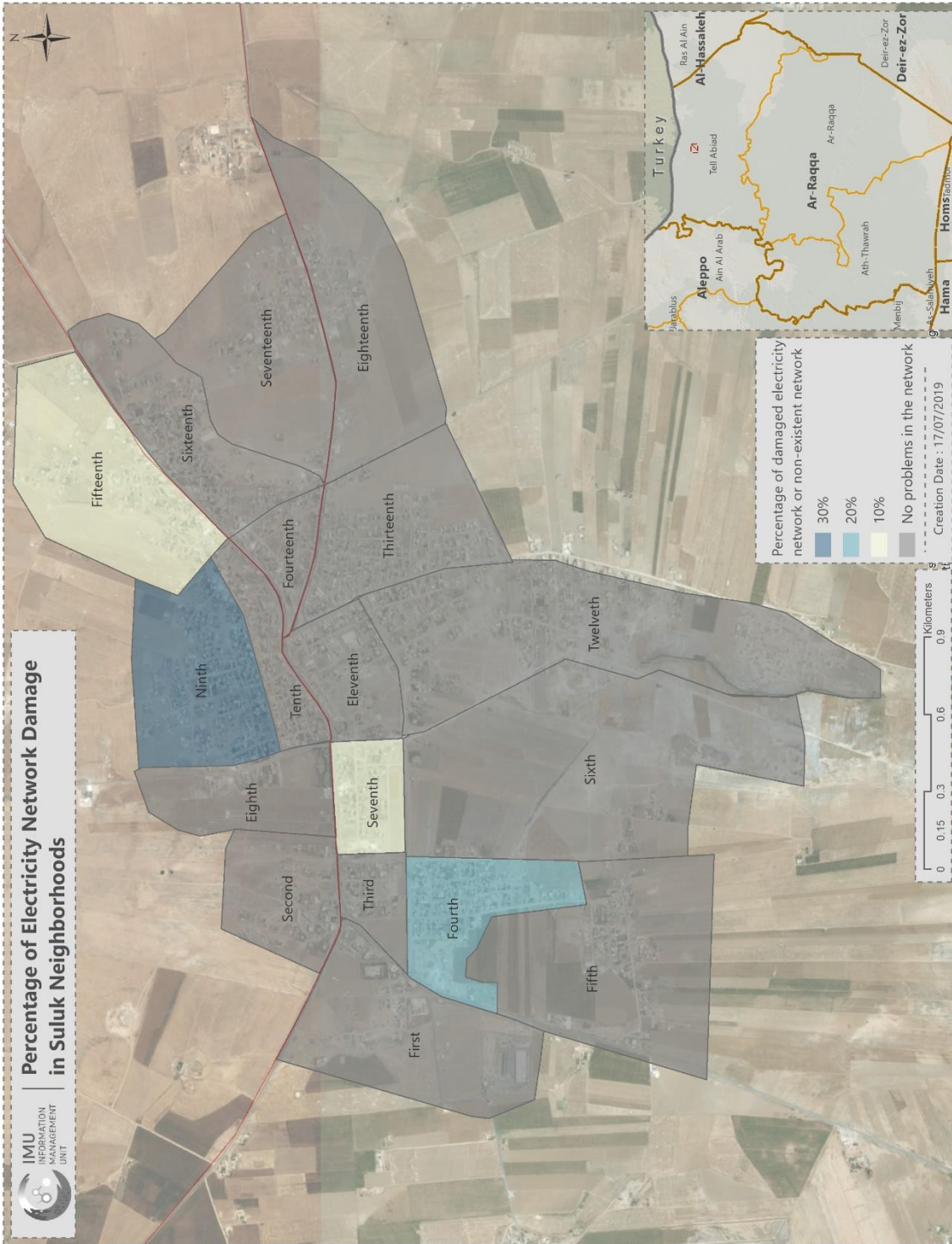
1. The Public Electricity Grid

The study demonstrated that the bulk of the public electricity grid in Suluk city was functional and needed simple maintenance works only. The highest percentage of destruction was found in the Ninth Neighborhood by 30% of the public grid, followed by 20% in the Fourth Neighborhood and 10% in each of the Seventh and the Fifteenth Neighborhoods. The electricity was supplied in the city for 13 hours per day from the public grid. The so-called MSD of the PKK imposed a monthly fee of 2,500 SYP (an equivalent to USD 4) for the electricity supply.

Figure 59 The Technical Status of the Electricity Grid in Suluk City at the Neighborhood Level



Map 37 Destruction in the Electricity Grid in Suluk City at the Neighborhood Level



Suluk city had six functional electricity converters (boost converters to step up the voltage in the public electricity grid); five of which were vertical pad-mounted with a capacity of 1,000 KVA each and two of them were ground pad-mounted with a capacity of 5,000 KVA each. All of the city's converters were functional and needed periodic maintenance only.

Table 68 Electricity Converters in Suluk City

#	Name of Neighborhood	Type of Converter	Technical Status	Capacity
1	Second Neighborhood	Ground pad-mounted	Functional	5,000
2	Twelfth Neighborhood	Ground pad-mounted	Functional	5,000
3	Thirteenth Neighborhood	Vertical pad-mounted	Functional	1,000
4	Fourth Neighborhood	Vertical pad-mounted	Functional	1,000
5	Eighth Neighborhood	Vertical pad-mounted	Functional	1,000
6	Fifth Neighborhood	Vertical pad-mounted	Functional	1,000
7	Sixteenth Neighborhood	Vertical pad-mounted	Functional	1,000

2. The Public Electricity Generators (Amperes)

Suluk city had four public electricity generators and the majority of its neighborhoods had none.

Some families had access to electricity from nearby neighborhoods which contain public generators, some well-off families had their private generators, whereas there were some families whose financial conditions were deteriorated and could not afford the electricity's fees. The monthly subscription fee was 2,400 SYP per ampere (an equivalent to USD 4); however, a family needs a minimum of two amperes of electricity for lighting and some electronics only. The information sources confirmed that reliance on public generators had significantly declined since the electricity's availability from the public grid.

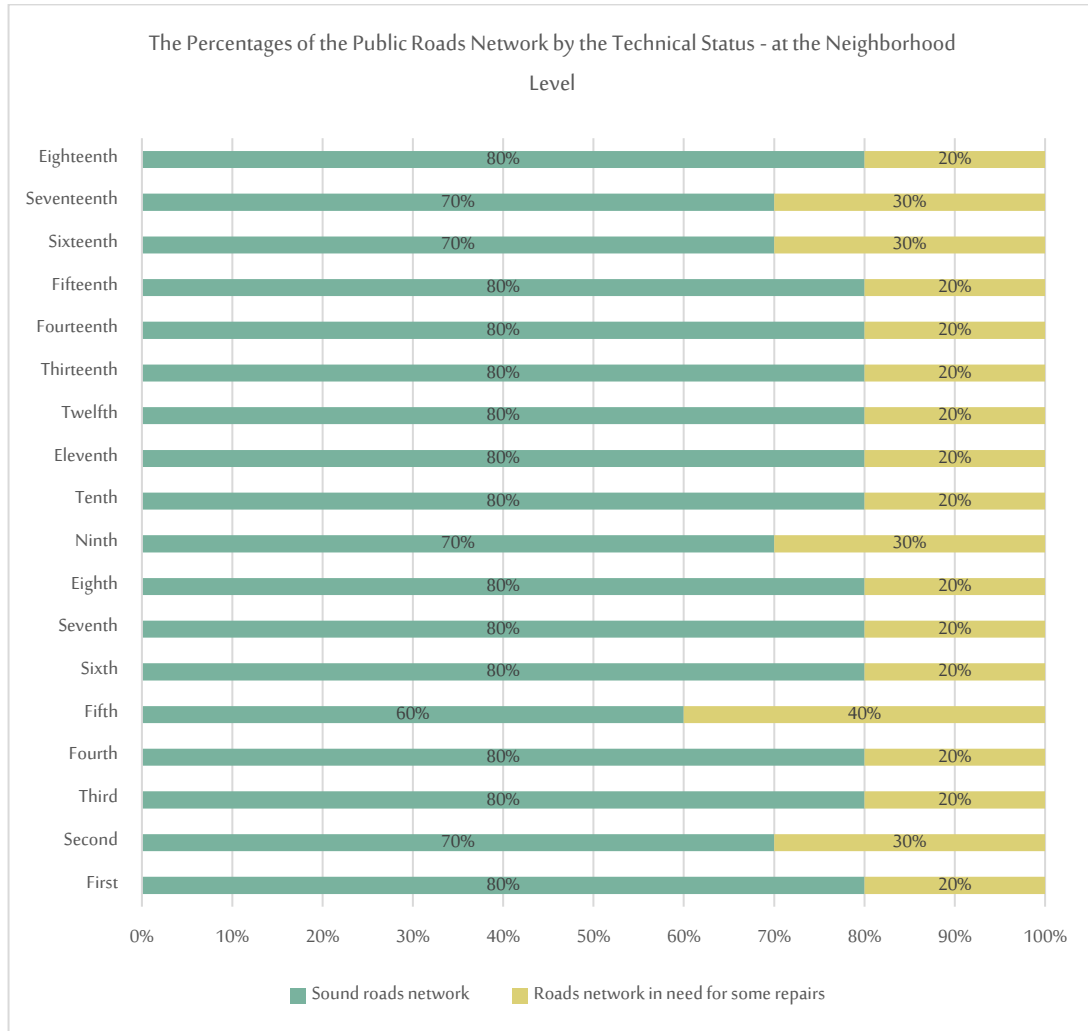
Table 69 Public Electricity Generators in Suluk City at the Neighborhood Level

#	Name of Generator	Capacity	Covered Neighborhoods
1	Al-Bidan	250	Seventeenth and Fourteenth neighborhoods
2	Al-Bidan	250	Thirteenth neighborhood
3	Khalil Al-Awwas	250	Eighth, Ninth and Tenth neighborhoods
4	Talal Al-Ajaj	250	Fifteenth and Sixteenth neighborhoods

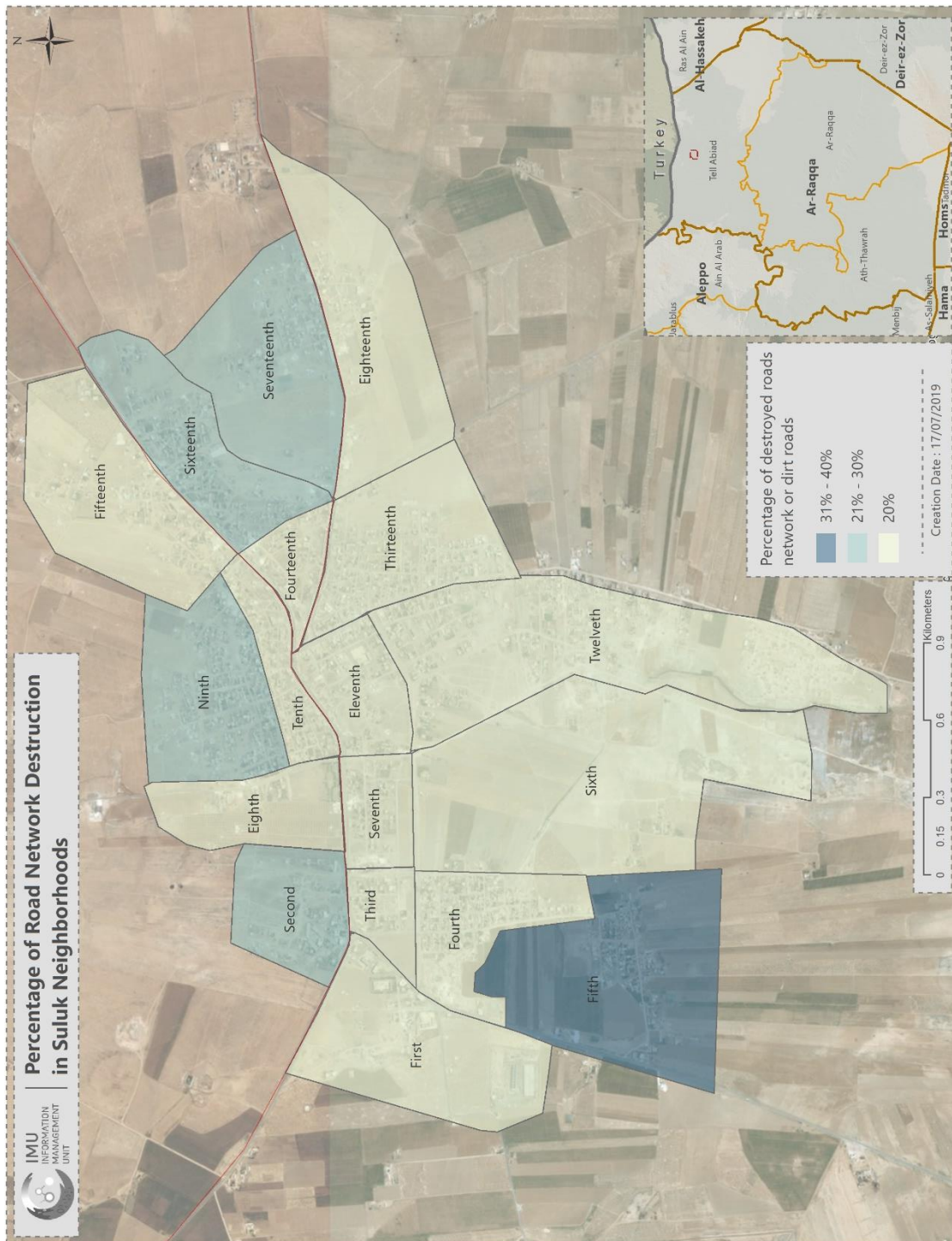
Ninth: Public Roads in Suluk City

The study demonstrated that all public roads in Suluk city were disproportionately destroyed. The roads were destroyed by 40% in the Fifth neighborhood, by 30% in the Second, the Ninth, the Sixteenth and the Seventeenth neighborhoods and by 20% in the other neighborhoods.

Figure 60 The Technical Status of the Roads Network in Suluk City at the Neighborhood Level



Map 38 Destruction in the Roads Network in Suluk City at the Neighborhood Level



Ar-Raqqa Governorate Panoramic Report

- Tribes of Ar-Raqqa Governorate
- Agriculture and Irrigation Systems in Ar-Raqqa Governorate
- Ar-Raqqa City
- Ath-Thawrah City (Tabaqa)

- Tell Abiad City
- Ein Issa City
- Suluk City

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