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Access to Basic Urban Services in the Adjacent Areas of Palestinian Refugee Camps in Lebanon

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Foreword

This report is the result of a joint effort by UNDP and UN-HABITAT to gain a better understanding of the various dynamics governing access to basic urban services in the Adjacent Areas of Palestinian Refugee Camps in Lebanon. In this sense, it is the first attempt to approach the Adjacent Areas of Palestinian Refugee Camps in Lebanon as a distinct category of Palestinian gatherings, in order to better understand the various factors shaping access to basic urban services.

While Adjacent Areas have been discussed in the context of studies covering Palestinian gatherings in Lebanon, their adjacent geographic location to the camps have allowed for the development of alternative mechanisms for accessing basic urban services which are unique to them. This report thus aims at developing an understanding of access to basic urban services, which goes beyond the physical description of the state of services, and examines the governance mechanisms involved in the access and maintenance of these services.

It is our hope that, through the codification of local knowledge and practice, this initiative will contribute policy dialogue on these issues in Lebanon and will inform the development of more comprehensive approaches for addressing basic urban services in Adjacent Areas, through integrated strategies at the national and local levels.

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Acknowledgments

Thanks to the UN-HABITAT team:

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Nancy Hilal – Author / Researcher
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Talar Oskeridjian – Administrative Finance Assistant
Nesrine Abdallah – Data Collection Volunteer

Thanks to the advisory group:

Celine Moyroud – UNDP
Taija Kontinen – UNDP
Nikolaus Hartz - UNRWA FICIP
Marie Scharlig - UNRWA FICIP
Joumana Nasser - LPDC
Zeina Fathalla - LPDC

Thanks to these stakeholders for their input:

Camp Service Officers (CSOs) – UNRWA
Popular Committees in Camps
Local Committees in the 12 AAs

Beddawi Municipality
Bhannine Municipality
Darb el Sim Municipality
Mieh Mieh Municipality
Muhammara Municipality
Saida Municipality

EDL in Saida and Halba
WAs in South Lebanon

Eduard Kattoura – PLO
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Rabih Shibli – Beit bel Jnoub
Tarek Osseiran – UN-HABITAT

and the local communities in the 12 AAs

All maps and pictures are produced and taken by UN-HABITAT research team, unless otherwise stated

Executive Summary

In July 2009, the United Nations Development Programme (UNDP) in Lebanon commissioned the United Nations Human Settlements Programme (UN-HABITAT) to carry out a research on access to basic urban services (BUS) in the Adjacent Areas (AAs) of Palestinian Refugee Camps in Lebanon. The research work program started in August 2009 and ended in April 2010.

1. Scope of the Research

For the purpose of this research, AAs are informal Palestinian gatherings that are located on the boundaries of official Palestinian refugee camps in Lebanon. The BUS covered are in the sectors of: 1) Water Provision; 2) Sewerage; 3) Solid Waste Management; 4) Electricity; and 5) Road Networks. The research looks at access to basic urban services from a governance perspective, focusing on dwellers' strategies and mechanisms; their web of relationships with other public and private stakeholders; and the role played by each stakeholder. It also presents a rapid assessment of the state of BUS in the AAs and investigates the connections of these services to those in the adjacent camps and the surrounding towns and villages.

2. Significance and Objectives

AAs remain an untapped field of study and the few previous studies that included AAs in their assessments did not differentiate them from other Palestinian gatherings. However, due to their specific location along the boundaries of Palestinian refugee camps and in proximity to residential areas in the surrounding villages and towns, AAs exhibit particular characteristics and governance structures of their own, especially in access to basic urban services. For any attempt that aims at improving access to BUS in the AAs, it becomes extremely important to understand these characteristics and governance structures and learn from them.

The research aims to serve as the basis for guiding future strategies and policies that would improve access to BUS in the AAs as part of the wider context in which they are found. It aims at bringing the discussion to public and private attention and building on existing local practices, relationships and knowledge to suggest more integrated approaches for enhancing living conditions and access to BUS in the AAs. In this context, the research is designed to accomplish the following objectives:

- Identifying and defining Adjacent Areas of Palestinian Refugee Camps as a specific category of Palestinian gatherings in Lebanon and locating the AAs within their wider geographic context.
- Investigating the local governance structures of accessing and maintaining BUS in the AAs; and highlighting the relationships and networks that tie the local communities to other public and private stakeholders.
- Documenting alternative mechanisms and self-help initiatives undertaken by dwellers in the AAs to access and maintain BUS.
- Mapping the roles of different public and private stakeholders involved in the informal BUS provision in the AAs.
- Examining the relative technical methods applied for accessing and maintaining BUS and repairing infrastructure networks in the AAs.
- Undertaking a rapid assessment of the state of BUS in the AAs and investigating the main factors that impact upon this, in addition to identifying the problems and shortfalls in each BUS sector.
- Identifying the main needs, priorities and suggestions for improving access to BUS in the AAs from the perspective of local communities and other involved stakeholders.
- Investigating connections between BUS and infrastructure networks in the AAs and those in the adjacent camps and surrounding villages and towns and highlighting mutual impacts and common problems.

- Proposing a set of recommendations that aims at enhancing dwellers' access to adequate and sustainable BUS in the AAs, taking into consideration the wider geographic and policy context.

3. Main Findings

Definition and Identification of AAs

The research has developed a set of criteria for defining Adjacent Areas of Palestinian Refugee Camps in Lebanon as a specific category of 'Palestinian gatherings', as per the latter's definition by Fafo (2003). These criteria are:

- Location: An AA is an area located in direct proximity or adjacency around the boundaries of official Palestinian refugee camps in Lebanon.
- Demography: An AA is inhabited by a majority of Palestinian refugees, with a sense of being a distinct group living in a geographically identifiable area.
- Tenure: An AA exhibits informal access to tenure and has no official UNRWA camp status.
- Access to Basic Urban Services: An AA witnesses no provision of basic urban services by the state (public agencies and municipalities), UNRWA or other institutions.

Twelve AAs were identified to be distributed around the two camps of Beddawi and Nahr el Bared in North Lebanon (2 AAs and 1 AA respectively) and the two camps of Mieh Mieh and Ain el Helwe in Saida area in South Lebanon (1 AA and 8 AAs respectively).

Access to Basic Urban Services in AAs

Access to basic urban services constitutes a major concern for dwellers in the AAs. Living in informal settlements distributed along the fringes of official camps, dwellers in the AAs are not entitled access to BUS provided by public service agencies and municipalities in the surrounding areas or to those provided by UNRWA in camps. As an alternative mechanism, dwellers in the AAs resort to a number of self-help initiatives to access and maintain BUS. These include: 1) direct implementation of basic urban services; 2) tapping into surrounding services and infrastructures; 3) forming local committees under the camp PC structure; 4) pooling of financial resources; and 5) employing relationships with other stakeholders.

While in the absence of other options, these informal practices work to ensure dwellers' access to BUS, the services themselves are inadequate, unsustainable and characterized by huge gaps and shortfalls. Methods that are feasible to AA dwellers for implementing and repairing BUS are generally elementary and inadequate; they occur without minimum consideration to environmental or engineering standards. In addition, infrastructure networks and BUS in the AAs are informally connected to those in the camps and surrounding residential areas in ad-hoc methods, drastically impacting and affecting each other.

Self-Help Initiatives

The self-help initiatives used by dwellers in the AAs to access and maintain basic urban services could be summarized as follows, highlighting the role of involved public and private stakeholders:

Direct Implementation of Basic Urban Services: In order to access and maintain BUS in the AAs, dwellers resort to the direct implementation and repair of BUS. These direct interventions undertaken by dwellers occur either individually or collectively within their limited financial and technical capacities.

Tapping into Surrounding Services and Infrastructure: In order to secure access to BUS, dwellers in the AAs also resort to tapping into surrounding BUS and infrastructure networks in the camps or the surrounding villages and towns. Connection to surrounding infrastructure networks is informally carried by dwellers, generally using ad-hoc and substandard methods.

Forming Local Committees Under the Camp PC Structures: In terms of the organizational structure, AAs are internally managed by local committees that are generally formed under the wider structure of the Popular Committees (PCs) in the camps they surround. These local committees carry the responsibility of organizing, operating and managing BUS, mainly in the water and electricity sectors, under the wider operation of the PCs. For this purpose, they have initiated local funds fed by small monthly contributions from households in the AAs.

Pooling of Financial Resources: Local committees in the AAs resort to the pooling of financial resources either through collecting household contributions to the local funds or through mobilizing additional contributions for larger-scale interventions from dwellers and/or the PCs in camps (mainly through the PLO). Equally, dwellers in the AAs take the initiative of collecting financial contributions among each other for implementation or repair works targeting groups of neighboring houses.

Employing Relationships with Other Stakeholders: In order to facilitate the implementation of required BUS interventions in the AAs, PCs in camps and local committees in AAs resort to employing their relationships and networks with these stakeholders:

PLO and Palestinian Political Factions: Formed under the structure of the main PCs in camps, the local committees request complementary funding from the PCs, which is generally provided from the PLO. It is not uncommon for these committees to seek financial and technical support from the more capable political factions in the camps.

UNRWA: Dwellers resort to UNRWA Camp Service Officers (CSOs) in the adjacent camps to request UNRWA intervention mainly in collecting solid waste and unblocking congested sewage pipes and manholes. Dwellers use a number of strategies to collectively exert pressure on UNRWA, which vary from repetitive requests and presenting signed letters to collective lobbying and negotiations. As a result, UNRWA has extended some BUS, mainly solid waste collection, to a number of AAs. UNRWA CSOs sometimes play the role of mediators with international donor agencies to help extend or implement BUS projects in the AAs.

Public Service Agencies: EDL directly provides electricity in two AAs, mainly through regular meters, and collects monthly consumption bills from households. In the remaining AAs, electricity is provided through the camp or AA networks that are locally organized and managed by the PCs and the local committees. Although the source of electricity is EDL, the agency does not collect or receive any consumption fees. However, EDL provides some informal logistical support for implementing or repairing main electricity networks in these AAs; these interventions occur as informal 'favors' requested by Lebanese political leaders who show affiliation to the local communities.

Political Leaders and Figures: Given their long term understanding of the political context in Lebanon, the PCs and the local committees employ their relationships with some Lebanese political leaders to facilitate BUS interventions in the AAs (see above).

Municipalities: The relationship between the municipalities that accommodate for AAs and the local communities in these AAs is characterized by lack of information and communication. Municipal absence in providing BUS in the AAs is due to a number of factors that include: abiding by law; limited financial, technical and human resources; insecurity in the majority of camps and AAs; and restricted access to some AAs by the Army. The illegal occupation of land in some AAs have obstructed the granting of permission by municipalities and/or private land owners for implementing BUS projects in the AAs. The lack of comprehensive infrastructure plans that address the impact of these projects on the municipal networks poses an additional local concern.

4. Key Conclusions

Access to basic urban services in the AAs is shaped by a combination of aspects that constitute major challenges. These are summarized by the following:

Legal Aspects

Informality: Living in the informal AAs, dwellers are not entitled access to public or UNRWA BUS. In addition, no institutional framework is adopted by the government to enable and facilitate the implementation or improvement of BUS in the AAs and other informal settings.

Land Tenure: The absence of a public strategy that addresses insecure tenure and rights of the original owners of occupied lands in some AAs constitutes a challenge to the implementation of BUS interventions in these areas.

Political Aspects

Political Sensitivity: Improving access to BUS for Palestinian refugees is hindered by the sensitive political context in Lebanon, since it could be interpreted in political discourse as a step towards their 'permanent resettlement' (*tawtin*) in the country.

Security Measures around Camps and AAs: Associated with perceptions applied to camps, some AAs are included within the security procedures (required access permits, checkpoints and separation fences) applied around some camps, which complicates BUS interventions.

Socio-Economic Aspects

Living Conditions of Palestinian Refugees in Lebanon: Dwellers' capacity to invest in improving their access to BUS is challenged by the poor living conditions of Palestinian refugees in Lebanon, which are affected by the restrictions applied on refugees' civil rights mainly those related to ownership and work.

Living Environment in the AAs: In addition to informality and poverty; other characteristics of the AAs, such as high population density, haphazard construction and poor site conditions, increasingly compromise dwellers' access to BUS as well as the state of these services.

Governance/Institutional Aspects

Lack of Comprehensive Plans and Strategies: Similar to other informal settlements in Lebanon, AAs are excluded from national strategies and local development plans in the domain of BUS and infrastructure.

Lack of Communication and Coordination Mechanisms: Access to BUS in the AAs is affected by the lack of communication and coordination between involved stakeholders in the AAs and the surrounding camps and villages and towns.

Limited Municipal Resources: Municipalities accommodating the AAs generally suffer from lack of financial, technical and human resources, which limits their potentials for intervention.

Limited PC Resources: Similarly, the lack of financial, technical and human resources of Popular Committees in camps have limited the capacity to improve access to BUS in the AAs. Local committees operational in the AAs rely on very limited resources for carrying their roles and responsibilities regarding BUS.

Project Based Approaches: The only planned interventions for improving BUS in the AAs occur as humanitarian initiatives that are individually designed and implemented by (I)NGOs in the absence of any overarching strategies. These interventions take the form of short-term rehabilitation and upgrading projects; the sustainability of rehabilitated infrastructure networks is challenged by the limited local resources in the AAs.

Financial Sustainability Aspects

Lack of Employment Allocations: The sustainability of BUS in the AAs is affected by the lack of employment allocations at the PC level.

High Costs for Dwellers: Dwellers in the AAs pay relatively high amounts of financial resources, compared to their income, in order to implement and sustain alternative BUS. These high costs do not guarantee dwellers' access to adequate or safe BUS.

Technical Aspects

Ad-hoc Methods of Implementing BUS: In the absence of any developed plans for guiding local self-help interventions, BUS in the AAs are generally implemented and maintained through ad-hoc and unsound methods, leading to substandard services.

Lack of Information and Data: Information and data related to the living conditions, access to BUS in the AAs and the state of these services are generally scarce and incomplete.

5. Recommendations

In light of the current political context that limits Palestinian refugees' access to civil rights, *upgrading* could represent a pragmatic and feasible strategy to improve dwellers' access to basic urban services in the AAs. If adopted by the government, the upgrading of AAs could go beyond the "focus on the provision or improvement of BUS" to involve "re-planning and re-development" to ensure a more comprehensive approach to improving living conditions in the AAs (UN-HABITAT, 2009).

In this context, a set of recommendations are developed that aim at improving access to BUS in the AAs as part of the wider regional and national context:

Developing an Enabling Institutional Framework: Developed by the government, this institutional framework would facilitate and/or regularize the provision of BUS, through public and/or private agencies, in the AAs as well as in the informal settlements in general.

Adopting More Comprehensive Approaches to BUS: Include BUS and infrastructure networks in the AAs within the wider national and/or regional strategies and local development plans; design more comprehensive infrastructure strategies and projects that take into consideration the existing infrastructure connections in the AAs and the surrounding camps.

Promoting Dialogue and Communication: Reinforce communication and coordination between government institutions, local authorities, UNRWA, camps PCs and local communities in AAs regarding BUS; engage the local communities in AAs in the decision-making and implementation processes.

Encouraging Partnerships: Foster partnerships at the national and local levels to include:

- Government: to develop comprehensive strategies to upgrade and guide the provision of BUS in the AAs by public and/or private institutions and guarantee their sustainability.
- PCs in Camps and Local Committees in AAs: to continue performing their roles in an enhanced manner, develop proper management schemes for the locally managed BUS through better planning; influence and monitor the funding and execution of relevant projects and; raise awareness of local communities.

- Relevant Municipalities: to promote the integration of BUS projects in the AAs within the wider local development plans and secure the active engagement of all concerned stakeholders.
- Humanitarian and Development Agencies: to continue investing in BUS improvement initiatives in the AAs and advocate donor agencies to provide necessary financial support.

Building Local Capacities and Skills: Improve the human and technical capacities of local committees in AAs and concerned municipalities; design training programs responding to local needs in the AAs and the surrounding areas focusing on BUS planning, organization and management.

Planning for Financial Sustainability: Design comprehensive financial strategies and cost recovery plans to provide affordable BUS in the AAs; document financial contributions paid by AA dwellers to access and maintain BUS in order to encourage the intervention of public and/or private agencies; enhance the financial resources of involved local committees and municipalities; allocate full-time employment resources.

Enhancing Access to Information: Establish a database containing relevant studies and information; share this database with involved public and private stakeholders and encourage dialogue; create a platform for exchanging experiences on local approaches to BUS provision in informal settlements and Palestinian gatherings.

Contents

Part One
General Findings and Analysis

Part Two

Detailed Findings: Access to Basic Urban Services per Each Adjacent Area

Annexes

List of Figures, Tables and Boxes

Figures

Tables

Boxes

List of Acronyms and Abbreviations

AA	Adjacent Area
BUS	Basic Urban Services
CDR	Council for Development and Reconstruction
CESVI	Cooperazione e Sviluppo
CII	Camp Improvement Initiative
CISP	Comitato Internazionale per lo Sviluppo dei Popoli
CISS	International Cooperation South – South
CSO	Camp Service Officer (UNRWA)
DRC	Danish Refugee Council
ECHO	European Commission Humanitarian Aid
EDL	Eléctricité du Liban
Fafo	Institute of Applied International Studies
FICIP	Field Infrastructure and Camp Improvement Programme (UNRWA)
ICG	International Crisis Group
ICRC	International Committee of the Red Cross
IMF	Independent Municipal Fund
IR	Islamic Relief
JBIC	Japanese Bank for International Cooperation
KFAED	Kuwait Fund for Arab Economic Development
KFW	Entwicklungsbank
LAF	Lebanese Armed Forces
LPB	Lebanese Pounds
LPDC	Lebanese Palestinian Dialogue Committee
MoEW	Ministry of Energy and Water
NBC	Nahr el Bared Camp
NC	Neighborhood Committee
(I)NGO	(International) Non-Governmental Organization
NTCC	New Trading and Contracting Company
NPA	Norwegian People's Aid
NRC	Norwegian Refugee Council
PARD	Popular Aid for Relief and Development
PC	Popular Committee
PFLP-GC	Popular Front for the Liberation of Palestine – General Command
PLO	Palestinian Liberation Organization
PU	Première Urgence
SC	Sector Committee
UN	United Nations
UNDP	United Nations Development Programme
UN-HABITAT	United Nations Human Settlements Programme
UNICEF	United Nations International Children's Emergency Fund
UNRWA	United Nations Relief and Works Agency for Palestinian Refugees in the Near East
USD	United States Dollars
WA	Water Authority

Part One

General Findings and Analysis:

Access to Basic Urban Services in the Adjacent Areas

Section I

Introduction

This research investigates access to basic urban services for Palestinian communities living in the Adjacent Areas (AAs) of Palestinian Refugee Camps in Lebanon. The basic urban services (BUS) covered are in the following sectors:

- Water Provision;
- Sewerage;
- Solid Waste Management;
- Electricity;
- Road Networks.

Adjacent Areas (AAs) are informal Palestinian gatherings located around the boundaries of official Palestinian refugee camps in Lebanon. In line with the state's approach to service provision in informal settlements, dwellers in the AAs are not entitled access to public basic urban services provided by public agencies and municipalities. Similarly, they are not entitled access to the basic urban services provided by UNRWA, since they live outside the boundaries of official camps. Deprived from BUS provided by public or private agencies, dwellers in the AAs are forced to devise alternative strategies and mechanisms for accessing and maintaining these services.

This research aims at understanding the alternative mechanisms employed by dwellers in the AAs to access and maintain basic urban services and the relevant methods applied. For this purpose, it looks at access to basic urban services from a governance perspective, focusing on dwellers' strategies and mechanisms; their web of relationships with other public and private stakeholders; and the role played by each stakeholder. It also presents a rapid assessment of the state of BUS in the AAs and investigates the connections of these services to those in the adjacent camps and the surrounding towns and villages.

1. Research Background

In July 2009, the United Nations Development Programme (UNDP) commissioned the United Nations Human Settlement Programme (UN-HABITAT) to carry out a research on access to basic urban services in the Adjacent Areas of Palestinian Refugee Camps in Lebanon in the sectors of: water provision, sewerage, solid waste management, electricity and road networks. The research work program started in August 2009 and ended in April 2010.

The research represents an up-scaling of a pilot initiative previously undertaken by UN-HABITAT to assess and improve basic urban services in the Adjacent Area of Nahr el Bared Camp (NBC) and the town of Muhammara[1] in North Lebanon.

1.1 Pilot Initiative: Improving BUS in Muhammara and NBC AA

In 2008-2009, UN-HABITAT initiated an intervention with the aim of improving the delivery of basic urban services in Muhammara and Nahr el Bared Camp Adjacent Area (NBC AA) in North Lebanon. The scope of this intervention fell under the joint UN project "Integrated Support to the Rehabilitation of the NBC Adjacent Areas" developed by UNDP, UNRWA, UNICEF, UN-HABITAT, and the ILO. This ECHO funded project aimed at reinforcing recovery in NBC and its surrounding after the NBC conflict in 2007[2]. The overriding concern behind the UN-HABITAT initiative was the limited capacity of the Municipality of Muhammara in BUS delivery and the temporary provision of BUS by UNRWA in NBC AA, the latter currently occurring as an Emergency Programme until the reconstruction of NBC.

With the aim of exploring ways to provide adequate and inclusive basic urban services in Muhammara and NBC AA, UN-HABITAT achieved the following outcomes:

- Report "Towards an Inclusive Post-Conflict Recovery: Improving Municipal Service Delivery in Muhammara and NBC Adjacent Area", presenting a rapid assessment of BUS in Muhammara and NBC AA and outlining UN-HABITAT intervention;
- Local consensus on the types of municipal machineries that were provided by UN-HABITAT to Muhammara Municipality with a total value of 110,000 USD.

The initiative was valuable for the formulation of a number of conclusions and lessons. It mainly revealed the huge lack of data and documentation regarding all aspects of life in the Adjacent Areas of Palestinian Refugee Camps in Lebanon, including access to BUS. The lack of information and communication between local stakeholders increased the gap between the local communities and prevented any attempts of reconciliation or cooperation, even when common problems and needs in BUS existed.

1.2 Scope of the Research

Based on the lessons learnt from the pilot initiative and acknowledging the difficult living conditions in AAs, UNDP and UN-HABITAT joined their efforts to extend the research on basic urban services to cover all the Adjacent Areas of Palestinian Refugee Camps in Lebanon (see Box 1 for the notion of basic urban services in the UN-HABITAT agenda). Under the new scope, the research adopts a more comprehensive approach for addressing and studying BUS in the AAs.

An example of the municipal machineries donated to the Municipality of Muhammara by UN-HABITAT as part of its pilot project in Muhammara and NBC AA

1 Muhammara is a town located in North Lebanon 16 km from Tripoli and includes Nahr el Bared Camp and most of its AA within its municipal boundaries.

2 In May 2007, violent clashes erupted in NBC between the Lebanese Army and militants from Fateh al Islam radical group. As a result of the conflict, most of NBC was destroyed and much of the NBC AA was heavily damaged and partially destroyed. When the clashes ended in September 2007, more than 25,000 Palestinian refugees were displaced from the camp mainly to NBC AA and other Palestinian refugee camps in Lebanon.

It aims at developing an understanding of access to BUS that goes beyond the physical description of the state of services to examining how these services are accessed and maintained. It looks at the governance structures that involve access and maintenance of BUS and documents the alternative strategies and mechanisms developed by the local communities through the accumulation of local knowledge. In this regard, the research complements previous studies undertaken by INGOs to assess the state of BUS in Palestinian gatherings in Lebanon. These include the Danish Refugee Council - DRC (2005) and Première Urgence - PU and the Norwegian Refugee Council - NRC (2009).

BOX 1
BUS in the UN-HABITAT Agenda

The scope of this research complies with UN-HABITAT global agenda, in which it undertook initiatives for improving access to basic urban services for all as a key means to achieving the Millennium Development Goals. Basic urban services, as defined in paragraph 84 of the Habitat Agenda, includes the delivery of infrastructure-based services such as water, sanitation, waste management, energy and transportation. UN-HABITAT acknowledges access to adequate BUS as a major component that contributes to human dignity and the acquisition of fundamental human rights.

See for example:

- UN-HABITAT's International Guidelines on Access to Basic Urban Services for All (2009),
- BUS Handbook (2004),
- UN-HABITAT Sustainable Cities Programme (2008).

In terms of the new geographic scope of the research, it was necessary to identify other AAs located around Palestinian refugee camps in Lebanon. The research identifies and covers a total of twelve Adjacent Areas that comply with UN-HABITAT's definition of AAs, as discussed in Section III of this part of the report. These AAs are distributed around Nahr el Bared and Beddawi camps in North Lebanon and Ain el Helwe and Mieh Mieh Camps in Saida area in South Lebanon (see figure 3; Page 40).

2. Significance and Objectives

The notion of Adjacent Areas of Palestinian Refugee Camps in Lebanon is a new one that came into recognition after the 2007 NBC conflict to indicate NBC AA[3]. Previous studies have considered the Adjacent Areas within the larger category of the informal 'Palestinian gatherings'. However, the early stages of this research revealed that AAs, due to their unique location along the boundaries of Palestinian refugee camps and in proximity to the residential areas in the surrounding villages and towns, exhibited particular characteristics and governance structures of their own, especially for accessing basic urban services. As such, this research represents a first attempt to approach Adjacent Areas as a specific category of Palestinian gatherings and to study the patterns that characterize access to BUS in these areas and learn from them.

As a result of the lack of precise information, living conditions and access to basic urban services in the AAs are commonly disregarded by public policy and concerned private institutions. In many cases, AAs are misconceived by local authorities to be parts of the camps they surround or to be included in BUS provision by UNRWA, obscuring the realities behind dwellers' access to BUS in these areas. The lack of information results in increased marginalization and exclusion of the communities living in the AAs and contributes to the challenges they face for improving their living situation.

Continuing to disregard the restricted and inadequate access to basic urban services in the AAs poses a threat on the general humanitarian, environmental and political situation in Lebanon. Due to the lack of provision of BUS, the living conditions of Palestinian refugees in the AAs are way below the humanitarian standards that the international community has committed itself to ensure. Improving dwellers' access to BUS in the AAs should therefore be addressed first on humanitarian grounds. Second, substandard BUS in the AAs could be linked to the development of unhealthy environments and epidemic diseases that affect dwellers not only in the AAs but also in the surroundings. Third, inadequate access to BUS in the AAs could be linked to incidents of conflict and provocation within the AAs or between the AAs and their surroundings.

As such, this research attempts at bringing the discussion on access to basic urban services in the AAs to the wider private and public spheres and anchoring it in its

3 NBC Adjacent Area became the official term adopted in 2009 by the Lebanese Army Forces, UNRWA and other UN agencies to indicate the informal expansion of NBC.

Continuing to disregard the inadequate access to BUS in the AAs poses a threat on the humanitarian, environmental as well as political situation in the AAs and in Lebanon

wider geographic and policy context. It aims at paving the road towards a more comprehensive approach of addressing BUS in the AAs at both the national and local levels. Such approaches are particularly significant in the case of Lebanon, where around 40 percent of the urban population live in informal settlements[4] and experience inadequate access to BUS. In this context, the research is designed to accomplish the following specific objectives:

- Identifying and defining Adjacent Areas of Palestinian Refugee Camps as a specific category of Palestinian gatherings in Lebanon and locating the AAs within their wider geographic context.
- Investigating the local governance structures of accessing and maintaining BUS in the AAs, highlighting relationships and networks that tie the local communities to other stakeholders.
- Documenting alternative mechanisms and self-help initiatives undertaken by dwellers in the AAs to access and maintain BUS.
- Mapping the roles of different public and private stakeholders involved in the informal BUS provision in the AAs.
- Examining the relative technical methods applied for accessing and maintaining BUS and repairing infrastructure networks in the AAs.
- Undertaking a rapid assessment of the state of BUS in the AAs and investigating the main factors that impact upon this, in addition to identifying the problems and shortfalls in each service sector.
- Identifying the main needs, priorities and suggestions for improving access to BUS in the AAs from the perspective of the local communities and other involved stakeholders.
- Investigating connections between BUS and infrastructure networks in the AAs and those in the adjacent camps and surrounding villages and towns and highlighting mutual impacts and common problems.
- Proposing a set of recommendations that aim at enhancing dwellers' access to adequate and sustainable BUS in the AAs, taking into consideration the wider geographic and policy context.

4. www.un.org/unrwa

3. Methodology

3.1 Research Framework

This research employs the concept of 'governance', since it allows for focusing on the different strategies, roles, relationships and networks that bring together the different stakeholders involved in the provision of basic urban services in the AAs (see Box 2 for a definition of governance). **Stakeholders** refer to the multiple actors involved in one setting; these could be drawn from both the public and the private sectors. **Negotiation** is the main process of interaction between these stakeholders who enjoy varying power-relations. It occurs in more informal organizations of governance, i.e. in which rules are not the product of hierarchical imposition by governments but where participants are themselves responsible for developing rules (Pierre, 1998). Rhodes (2000) refers to such informal organizations as **Networks**, which he defines as "one institutional setting in which public and private actors interact".

BOX 2
Definition of Governance

Governance could be defined as a set of institutions and actors drawn from but also beyond government where boundaries and responsibilities for tackling social and economic issues are blurred (Stocker, 1998). The notion of governance focuses on "how things are" rather than "how they should be" and on the role played by local communities for addressing their needs (Hirst, 2000). The framework of governance brings together analytical concepts such as stakeholders, negotiations and networks.

Access to basic urban services is about governance since it involves the actions, strategies and relationships of multiple stakeholders in order to determine who gets what, how, when and for what cost. According to UN-HABITAT (2004), basic urban services are provided in a setting where some level of formal and informal processes and structures exist, with different stakeholders playing various roles. The BUS Handbook highlights the importance of carefully assessing who these stakeholders are and what their roles, needs and interests are as a key first step to planning new, improved or up-scaled services (Ibid).

Since governance operates at various levels, stakeholders involved in the provision of basic urban services are found both at the national and the local levels; it is the relationships between them that determine how services are provided (Verhagen and Ryan, 2008). At the national level, stakeholders include the central government, public service agencies, international donors, the private sector and national and international NGOs. At the local level, stakeholders include local authorities, the local communities, community based organizations (CBOs) and local NGOs and small-scale private service providers.

The research employs the analytical concepts discussed above to investigate the various aspects that impact dwellers' access to basic urban services in the AAs and map the involved public and private stakeholders.

3.2 Methods of Identifying AAs

In order to identify Adjacent Areas of Palestinian Refugee Camps in Lebanon, a number of steps were taken. For locating the boundaries of the Palestinian refugee camps, UN-HABITAT relied on maps indicating the official camp boundaries from UNRWA. UN-HABITAT matched these maps with satellite images of the camps and their vicinities. Following this, the UN-HABITAT team carried out orientation field visits to the twelve official camps for Palestinian refugees in Lebanon and their surrounding areas. During these visits, meetings were held with active local stakeholders (members of Popular Committees, municipalities and UNRWA staff) to identify the potential existence of AAs. A parallel process was taking place to develop and validate a set of criteria for defining AAs. Another round of field visits was carried out with key local stakeholders in order to locate the AAs.

Due to the lack of relevant official cadastral maps, the boundaries of the AAs, as developed by UN-HABITAT, cannot be considered accurate since they were produced using satellite images. These maps are presented in Part Two of the report; while the boundaries of the AAs are well-defined in some cases, they are rather blurred with their surroundings in others. Data employed to define these boundaries were mainly collected through field work, since no mapping of these areas exist.

3.3 Methods of Data Collection

The lack of comprehensive studies, official data and statistics targeting AAs represent a key limitation to the research. The key findings of the research rely mainly on data collected by UN-HABITAT with the local communities and involved stakeholders. To validate the findings, UN-HABITAT used cross-referencing of data in addition to a number of validation meetings that brought together representatives of the stakeholders

involved in BUS provision in the AAs. In the absence of official figures and statistics, information will be referenced according to its source throughout the report. The main findings of the research were also shared with other UN-agencies, namely UNDP and UNRWA, and with LPDC for feedback. It is important to note that due to limited resources and time constraints, this research does not attempt to conduct a comprehensive survey of BUS discussed in this report. The core data in this report were collected through the following methods:

Review of Secondary Data

This involves the review of documents and reports produced by government institutions, UN-agencies, NGOs and researchers on a number of topics related to basic urban services, Palestinian refugees, informal settlements and Lebanese laws. The reports produced by DRC (2005) and PU/NRC (2009) on the state of shelter, water and sanitation in Palestinian gatherings in Lebanon were indispensable for forming a preliminary understanding of the living conditions in the AAs.

Maps were also used to identify the AAs and locate them within their geographical context. UN-HABITAT relied on Google Satellite images, available cadastral maps and UNRWA maps indicating the boundaries of official camps in Lebanon.

Preliminary Orientation Visits

Preliminary visits were conducted with key local stakeholders to the twelve official camps for Palestinian refugees in Lebanon and their surrounding areas in order to: investigate the presence of AAs that exhibited the criteria developed by UN-HABITAT; map active stakeholders and institutions involved in service provision; and form a basic understanding of the methods of BUS delivery in camps and surrounding areas as well as the relevant problems and shortfalls.

Key Interviews with Relevant Stakeholders

The main bulk of data in this report was collected through a number of structured interviews carried out with the various stakeholders involved in the provision of basic urban services in the AAs[5]. The following interviews were conducted over a period of four months:

Interviews with Popular/Local Committees: A set of interviews were conducted with Popular Committees (PCs) in the Beddawi, Nahr el Bared, Ain el Helwe and Mieh Mieh camps. In cases where two PCs with different affiliations existed in one camp, such as in Ain el Helwe, both committees were interviewed. Another set of interviews was later conducted with the local committees operational in the twelve identified AAs.

Interviews with UNRWA Staff: An interview was carried with the Field Infrastructure and Camp Improvement Programme (FICIP) of UNRWA, which operates at the national level. Another set of

5 For a list of interviewees, refer to the 'References' at the end of the report.

Discussions with dwellers during field visits were indispensable for gaining an understanding of their main concerns and needs

interviews was conducted with UNRWA area officers in North and South Lebanon and UNRWA Camp Service Officers (CSOs) and sanitation officers in the previously mentioned four camps.
It should be noted here that the FICIP considers the information given by the CSOs to reveal the view of UNRWA staff on ground, indicating the practical perception of UNRWA's attempts towards the population in the AAs rather than UNRWA's priorities and options concerning its entire mandate in Lebanon.

Interviews with Municipalities: Interviews were conducted with all mayors of the municipalities in which the AAs are located. These included the municipalities of: Beddawi, Muhammara and Bhannine in North Lebanon and the municipalities of Saida, Mieh Mieh and Darb el Sim in Saida area, South Lebanon. Additional interviews were carried out with municipal members and engineers.

Interviews with Public Service Agencies: These included interviews with the Water Authorities and EDL (including the Kadisha Concession) in North Lebanon and Saida area in South Lebanon.

Interview with the Lebanese Palestinian Dialogue Committee (LPDC): An interview was conducted with LPDC in their offices in Beirut to discuss government interventions on Palestinian refugee issues.

Interview with the Palestinian Liberation Organization (PLO): An interview was conducted with the PLO in their offices in Beirut.

Local Focus Group Meetings

The bulk of data in this research was also collected through a total of twelve focus group meetings conducted in the twelve AAs. These meetings were held with representatives of the local communities, which included dwellers (with focus on the participation of men, women and youth) and members of the local committees in the AAs. Where relevant, the focus group meetings included Lebanese dwellers in proportion to the Lebanese population living in each AA.

Field Observations

UN-HABITAT carried field visits to the twelve AAs to observe the state of basic urban services, the connection methods and the general living environments. Discussions with dwellers during these field visits were important to reflect on the previously mentioned issues.

Validation Meetings

The main findings of the research were presented in local validation meetings that brought representatives of the different stakeholders involved in BUS provision in the AA[6] together. The objective of these meetings was to validate and update the collected data and the findings of the report. Participants included representatives of the local committees in the AAs and the Popular Committees in the four camps, mayors of the relevant municipalities, UNRWA CSOs and the employees of the regional public service agencies. It should be mentioned that a representative from Premiere Urgence (PU) participated in the validation meetings of the AAs surrounding Ain el Helwe Camp, since PU has been implementing a number of projects for rehabilitating water and sewage networks in some of these AAs.

3.4 Advisory Support

The preliminary findings of this study were shared and discussed in two progress meetings that brought together representatives from the LPDC and UN-agencies, namely UNRWA FICIP and UNDP. The meetings took place on November 2009 and February 2010 in the LPDC offices in Beirut.

The final draft of the report was later shared with the previously mentioned agencies in order to collect their comments, suggestions and feedback.

See Box 3 hereafter for a clarification of the terms used through out the report.

6 For information on the number of validation meetings and participants in each, refer to Annex 2 at the end of the report.

BOX 3
Note on Terminology

Throughout the report, these terms will be used to indicate the following:

- **Dwellers** refer to those who live in the AAs, whether they were from the Palestinian majority or the Lebanese and other minorities.
- **Popular Committees (PCs)** refer to the PCs operational in the camps.
- **Local Committees** refer to all committees operational in the AAs, whether they are independent Popular Committees, Sector Committees or Neighborhood Committees.
- **Representatives of local communities** in the AAs refer to members of the Popular Committees in the camps and local committees in the AAs and the interviewed/participating dwellers.
- **Municipal areas** refer to the formal residential areas owned by private residents that exist within the municipal boundaries.

Terms that are specific to the five sectors of basic urban services are defined in the **Glossary of BUS Terms** in Annex 1 at the end of the report.

Section II

Context of the Research

This section represents the general context of the research on access to basic urban services in the Adjacent Areas of Palestinian Refugee Camps in Lebanon. This context is shaped by the intersection of two main layers: first, the general approach to basic urban service provision in Lebanon and second, the situation involving the presence of Palestinian refugees in Lebanon. Since each layer plays a major role in shaping and impacting dwellers' access to BUS in the AAs, this section will be divided into two main parts. The first part presents an overview of basic urban service provision in Lebanon. It discusses state's approach to the provision of BUS and draws attention to the cases of informal settlements, including Palestinian gatherings, and Palestinian refugee camps. The second part of this section presents an overview of the presence of Palestinian refugees in Lebanon. It focuses on the history of Palestinian refugees in the country, their living conditions in relation to Lebanese laws, their political and organizational structures and their distribution in the country, mainly in camps and gatherings.

1. Overview of Basic Urban Service Provision in Lebanon

This part presents the general context of public urban service provision in Lebanon. It starts by discussing the roles of the public service agencies and local authorities in the provision of BUS. It then focuses the discussion on the informal settlements, outlining alternative ways of accessing BUS and the roles of public service agencies and other stakeholders. Third, it discusses BUS provision in Palestinian refugee camps in Lebanon, focusing on the roles of the involved stakeholders, mainly UNRWA and the Popular Committees.

1.1 Public Provision of Basic Urban Services in Lebanon

In Lebanon, the provision of basic urban services has generally been the responsibility of the state, mainly through public service agencies and municipalities. However, the shortage in basic urban service provision in Lebanon has led to the formation of alternative private options, such as private electric and water resellers (Khayat, 2008). This case applies but is not limited to the case of informal settlements.

Basic urban services and infrastructure networks in Lebanon have been greatly damaged by the Lebanese civil war (1975 – 1990) and the repetitive Israeli military actions on Lebanon during the 1980s and most recently in 2006. At the end of the civil war in 1990, the Council for Reconstruction and Development (CDR) became responsible for the rehabilitation of all water, wastewater and solid waste infrastructure in Lebanon.

Role of Public Service Agencies

Two public service agencies, *Electricite du Liban* (EDL) and the Water Authorities (WAs), are responsible for the provision of electricity and water services respectively to residents in Lebanon. The performance of these agencies is monitored by the Ministry of Energy and Water (MoEW) that was initially established by Law No. 20 in 1966. The MoEW was granted extensive responsibilities by law No. 20 passed in 1996. These include preparing a national water policy, implementing all water and electricity projects throughout Lebanon, applying the laws and regulations related to the protection of public water resources and their use and managing all water and electricity concessions

Electricite du Liban

Electricite du Liban (EDL) was founded by Decree No. 16878 in 10 July 1964 to be responsible for the generation, transmission and distribution of electrical energy in Lebanon. Currently, EDL controls over 90 percent of the Lebanese electricity sector, including the Kadisha Concession in North Lebanon mostly owned by EDL. Other participants in the sector include hydroelectric power plants owned by the Litani River Authority; concessions for hydroelectric power plants such as Nahr Ibrahim; and distribution concessions in Zahle, Jbeil, Aley, and Bhamdoun[7].

EDL provides electricity to the residents through installing regular meters that are connected to main networks. In order to apply for a meter, residents are required to present residency permits to EDL offices that are accessible in the different regions of Lebanon. It should be noted that residency permits cannot be obtained in the case of illegal occupation of lands or houses. The cost of installing regular meters is 447,000 LBP (298 USD) for one residential unit and 612,000 LBP (408 USD) for buildings that accommodate for more than one residential unit. EDL charges subscribed households with monthly fees calculated at a consumption rate of 26,000 LBP (17.3 USD) for every 10 amperes.[8]

Water Authorities

Water Authorities (WAs) in Lebanon operate under the jurisdiction of the Ministry of Energy and Water (MoEW). These autonomous WAs are responsible for operating local projects following the MoEW approval, distributing domestic and irrigation water to users, controlling the quality of water and managing the disposal of wastewater collected by municipalities in their respective areas.[9] In exchange, households pay annual water fees of around 250,000 LBP (167 USD) per unit.

Role of Municipalities in Basic Urban Service Provision

Municipalities are defined by the Lebanese Municipal Law as 'local administrations' that practice their authorities and enjoy administrative and financial autonomy as permitted by the Lebanese Law. A municipality is established for a city, town, village or group of villages. Municipalities are lawfully responsible for works and utilities that have 'public character' or that 'benefit the public' within their geographic boundaries. These include execution of public works; implementation and maintenance of water and sewage house connections; maintenance of public electricity networks; installation and maintenance of street lighting; management of solid waste collection and disposal; water testing; and planning, repairing and widening of local roads.[10]

Unions of Municipalities have been established in some regions, which allows associated municipalities to benefit from joint municipal machineries and services (such as solid waste management). Solid waste management is usually contracted by municipalities or unions of municipalities to private companies.

Municipalities' budget consists of financial resources accessed through direct taxation or through their shares from the government's Independent Municipal Funds (IMF). Municipalities are entitled to collecting an annual tax related to the rent value of properties (ضريبة على القيمة التأجيرية), which is determined for

7 www.wdl.gov.lb

8 Interviews in EDL offices in Halba in North Lebanon and Saida, 2009.

9 Information in this section is provided by Makdisi, 2008.

10 Information in this section is extracted from the Municipalities Law in Lebanon, 1977.

residential units based on the number of rooms in one unit[11]. In addition, municipalities collect an annual tax for the maintenance of public infrastructure such as roads and pavements, sewage networks and public lighting. This tax, called 'tax on sewage and sidewalks' (ضريبة أرصفة ومجارير), is calculated as 1.5 percent of the previous tax. Other financial resources are distributed to municipalities from the central government through the Independent Municipal Funds (IMF). The share of each municipality is determined in proportion to the number of registered population, irrespective of the actual number of residents living within the municipal boundaries.[12] It should be mentioned that the amount and time of transfer of municipal shares from the IMF are not known to municipalities ahead of time. This negatively reflects on municipalities' capabilities to plan the allocation of these revenues at an early stage. Insufficient municipal shares from the IMF combined with low rates of local tax returns result in low financial resources that do not correspond to the overall responsibilities of municipalities. The lack of financial, technical and human resources have adversely impacted the capacity of municipalities to implement, deliver and maintain adequate basic urban services to all residents.

1.2 Basic Urban Service Provision in Informal Settlements in Lebanon

Under the Lebanese Law, dwellers living in informal settlements in Lebanon are not entitled access to public basic urban services. Informal settlements include Palestinian gatherings and therefore the Adjacent Areas of Palestinian Refugee Camps. According to Law 7279 issued in 1961, "it is forbidden to connect property owners or residents of a lot with a phone, service, or electricity if s/he does not provide a residency permit. Suspended momentarily in 1967, this provision was reinstated by the 1971 building code and reconfirmed in 1983. It applies to all public agencies providing services, including Water and Electricity Agencies" (Fawaz, 2004). Fawaz explains that the implications of this regulation were severe for dwellers in informal settlements since it prevented them from legally accessing basic urban services. However, the regulation was never strictly applied in practice. In order to respond to the informal provision of services in these settlements, EDL and WAs pressed for a ministerial decision which entitled them to collect fees for water and electricity that are informally provided in the informal settlements (Ibid).

11 The value of this tax was given by the Mayor of Beddawi in an interview in 2009 as follows: 80,000 LBP (53.3 USD), 100,000 (66.7 USD) and 120,000 LBP (80 USD) for residential units comprised of 2, 3 and 4 rooms respectively. According to law, if the conditions of applying this tax did not correspond to some residential units, the tax value would be determined through an estimation undertaken by a municipal committee formed for this purpose.

12 Municipalities' Taxation Law in Lebanon, 1988.

EDL provides electricity in some informal settlements in Lebanon, as shown in the AA of Tallet el Mankoubin around Beddawi Camp in North Lebanon

In 1992, EDL started providing electricity to dwellers in informal settlements through the installation of temporary meters known as 'circuit breakers'. Under this system, EDL charges each household a fixed monthly fee of 36,000 LBP (24 USD) for 10 amperes. This new system allowed EDL to expand its client base and enhance the cost recovery of its services through providing cheaper services in informal settlements. At the same time, it did not technically violate the law since dwellers in informal settlements were not connected to regular meters, which would require residency permits and would be considered permanent (i.e. once installed they cannot be removed). Circuit breakers on the other hand could be removed by EDL from informal settlements at any time and without prior notice. Similarly, the Water Authorities extends water services to some informal settlements and receives annual fees from most of these areas.

Municipalities extend some of their services to the informal settlements located within their municipal boundaries depending on the size of these areas, their integration with the surrounding and the availability of municipal resources. These services generally include the collection of solid waste, the repair of the sewage networks and the opening of internal roads. Municipalities carry these services in the informal settlements that are mainly inhabited by Lebanese families, since they perceive themselves to be accountable for Lebanese inhabitants, as explained by some interviewed mayors. Since Lebanese dwellers living in informal settlements are registered voters, this enables them to collectively lobby for the (informal) provision of some basic urban services through powerful political figures and electoral candidates. This factor provides them with additional mechanisms for accessing BUS, compared to the Palestinian refugees who also live in informal settlements.

1.3 Basic Urban Service Provision in Palestinian Refugee Camps in Lebanon

In Lebanon, the provision of basic urban services to Palestinian refugees living in the camps mainly falls under the responsibility of UNRWA (see Box 4 for a briefing on UNRWA). Popular Committees (PCs) organized under the PLO structure in Lebanon assist in the provision of BUS, mainly through managing the sectors of electricity and sometimes water. Although electricity is provided to all camps in Lebanon from EDL, the latter is not paid for the consumed electricity in camps.

UNRWA provides housing support and basic urban services in the sectors of water, sewerage, solid waste management and road networks only within the physical boundaries of the twelve official camps. UNRWA assigns a Camp Service Officer (CSO) in each camp to discuss issues related to its services with dwellers and to update its records. The CSO refers refugee concerns and petitions to UNRWA administration in the area in which the camp is located.

According to the report of the Commission General of UNRWA, the Agency has been facing difficulties in reaching a funding level sufficient to maintain adequate service delivery to refugees; at the same time, existing camp infrastructure and resources are no longer adequate to serve the refugee population (UNRWA, 2008). According to its mandate, UNRWA is not responsible for providing basic urban services in Palestinian gatherings or to refugees living outside the boundaries of the twelve official camps in Lebanon. However, it is responsible for providing health, educational and social services to all Palestinian refugees living in Lebanon.

BOX 4
UNRWA Brief

Establishment of UNRWA

Following the 1948 Arab-Israeli conflict, UNRWA, the United Nations Relief and Works Agency for Palestinian Refugees in the Near East was established by United Nations General Assembly Resolution 302 of 8 December 1949 to carry out direct relief and works programmes for Palestine refugees. The agency began operations on 1 May 1950. In the absence of a solution to the Palestine Refugee problem, the General Assembly has repeatedly renewed UNRWA's mandate, most recently until 30 June 2011.

Definition

UNRWA, the United Nations Relief and Works Agency for Palestinian Refugees in the Near East, is a relief and human development agency that provides education, healthcare, social services and emergency aid to over 4.6 million refugees living in Lebanon, the Gaza Strip, the West Bank, Jordan and the Syrian Arab Republic.

UNRWA Fund

UNRWA operations are financed almost entirely by voluntary contributions from governments and the European Union, which accounts for 94 percent of all income. Most contributions are received in cash, although 1.5 percent of income is received in kind, mainly as donations for food commodities for distribution to needy Palestinian refugees. Five percent of income is from United Nations bodies to cover staffing costs.

Source: www.un.org/unrwa

As mentioned earlier, one exception is currently taking place in NBC AA. After the NBC conflict in 2007, basic urban services in NBC AA have been rehabilitated and renewed by UNRWA, UNICEF, UNDP and other INGOs and NGOs through multi-lateral donations. The operation and management of these BUS are currently carried out by UNRWA as a temporary procedure. These interventions are occurring as part of UNRWA Emergency Programme that includes NBC AA since it hosts most of the families displaced from NBC. However, UNRWA provision of BUS in NBC AA is supposed to be terminated after the reconstruction of NBC and the return of displaced families to the camp.

Relief works undertaken by UNRWA and other agencies in NBC AA after 2007 conflict (Source NBRC)

Popular Committees (PCs) carry the responsibility of managing, operating and maintaining the sectors of electricity and sometimes water in camps. To carry out these works, PCs hire technicians and workers and pay them modest amounts, called 'awards', of monthly contributions. PCs generally divide the camps into a number of sectors; each sector is locally managed by a Sector Committee (SC) that operates under the wider PC structure in the camp.[13] The Sector Committees in each camp (or the PC in case a camp is not divided into sectors) collect monthly contributions from dwellers, ranging from 2,000 to 3,000 LBP (1.3 to 2 USD) per household, in order to operate and maintain BUS. When the PCs or SCs undertake further initiatives to repair or renew infrastructure networks, the costs are split between dwellers on the one hand and the PCs through financial contributions from the PLO on the other. It should be noted that PCs have been recently facing major challenges in carrying their responsibilities due to shortage in financial, technical and human resources as well as to the internal political divisions in the Palestinian arena.

13 More information on the local organization structures of Palestinian Refugees in Lebanon are mentioned in 2.3 in this section.

2. Overview of Palestinian Refugees in Lebanon

This part presents the general context involving the presence of Palestinian refugees in Lebanon. It focuses on the history of Palestinian refugees in the country, their living conditions in relation to Lebanese laws, their political and structural organization and their distribution in the country, mainly in camps and gatherings.

2.1 History of Palestinian Refugees in Lebanon

With the establishment of Israel in 1948, 100,000 to 140,000 Palestinians were displaced from their houses in Palestine to Lebanon[14] (ICG, 2009), where they sought shelter in tents that were established on temporary sites. In 1950, the United Nations Relief and Works Agency for Palestinian Refugees in the Near East (UNRWA) started its works to respond to the needs of these refugees. UNRWA started to provide refugees in camps with ration cards that served as registration and enabled refugees to obtain food rations, in-kind assistance, larger tents and health and education services (Samhan, 2008). UNRWA started implementing basic forms of urban services in camps, such as collective water points and collective toilets, with the help of the International Committee of the Red Cross. In mid 1950s, UNRWA helped displaced families in camps to replace their tents by wooden shacks and later by concrete houses; roofs that were made of corrugated iron sheets (zinco) were gradually replaced by concrete. Other Palestinian refugees were living in informal gatherings formed outside the boundaries of the camps. The more financially capable refugees have bought or rented houses in the formal residential areas in Lebanon.

It was not until the establishment of the Palestinian Liberation Organization (PLO) headquarters in Lebanon in 1970 that Palestinian refugees were able to improve their situations, mainly in camps. The Cairo Agreement (1969) endorsed the principle of camp self-management and allowed the PLO to openly resist Israeli occupation of Palestine from South Lebanon. During that period, Palestinian refugees firmly grounded themselves through the PLO's military authority in Lebanon. Palestinian refugee camps grew denser and developed both horizontally and vertically in the absence of state control (Khayat, 2008). The PLO also contributed to the provision of basic urban services in camps mainly through establishing water wells, purchasing electricity transformers, installing electricity networks and implementing streets and canals.

14 Palestinians were also displaced to Jordan, the Syrian Arab Republic, the Gaza Strip and the West Bank.

The situation of Palestinian refugees living in camps and gatherings was worsened by the Lebanese civil war (1975-1990). During the years of the civil war and mainly what is known as the 'War of the Camps'[15], most Palestinian refugees left their camps in search of safer areas mainly in the South and around Ain el Helwe Camp in Saida. The civil war and the repetitive Israeli invasions of Lebanon have inflicted many losses in lives and properties and resulted in enormous damages to infrastructure and service facilities in the Palestinian camps and gatherings as well as the total destruction of three camps. The Lebanese-Palestinian relationships have been shaped and impacted by this intertwined history (see Box 5 for a summary of the most relevant events in the history of Palestinian refugees in Lebanon).

Today, Palestinian refugees in Lebanon live in twelve official refugee camps and a total of forty-two Palestinian gatherings[16], as shown in figures 1 and 2 at the end of this section. Other refugees have integrated themselves in formal residential areas inhabited by Lebanese families across Lebanon.

15 The 'War of the Camps' took place between 1982 and 1984/1985, when Palestinian refugee camps were subjected to damage and destruction as a result of military actions between PLO and Lebanese opposing militias.

16 These gatherings were identified and located by Fafo, as discussed later in this section. For more information, see Fafo (2003) and Fafo (2005).

BOX 5
Time Line of Relevant Events

1948	Establishment of Israel that forced around 750,000 Palestinians from their country
1949	Establishment of UNRWA
1950	UNRWA started its operations in the Near East
1967	Defeat of the Arab Coalition in the Arab/ Israeli War
1969	Cairo Convention attended by Lebanese Government, PLO and Arab States; Cairo Agreement
1970	PLO relocated its headquarters from Amman to Beirut after armed conflict with the Jordanian Army (Black September)
1975	Outbreak of the civil war in Lebanon
1978	Israeli invasion of South Lebanon
1982	Israeli invasion of Beirut which forced PLO to leave Lebanon
1982	Massacres against Palestinian civilians in Sabra and Shatila
1982	'War of the Camps' between Palestinian armed groups and Amal Party for two years
1990	End of the Lebanese civil war
2000	Israeli withdrawal from South Lebanon
2006	Israeli 'July War' on Lebanon
2006	Re-establishment of Palestinian diplomatic representation in Lebanon
2007	Destruction of Nahr el Bared Camp in North Lebanon as a result of armed conflicts between the Lebanese Armed Forces and Fateh el Islam
2009	Reconstruction works started at NBC by UNRWA

2.2 Living Conditions of Palestinian Refugees in Lebanon

Palestinian refugees living in camps and gatherings in Lebanon are frequently reported to face the worse living conditions among Palestinian refugees in the host countries of the Middle East[17]. According to UNRWA, all twelve official refugee camps in Lebanon suffer from improper infrastructure, overcrowding, poverty and unemployment. UNRWA reports that Lebanon has the highest percentage of Palestinian refugees who are living in abject poverty and who are registered with the Agency's "special hardship" programme (UNRWA, 2009). Living conditions in gatherings have been reported to be even worse than those in camps due to the shortage of community and urban services (Fafo, 2003).

Camps and gatherings have generally been isolated from the national infrastructure systems in Lebanon, preventing them from benefitting from large-scale infrastructure projects that have recently been implemented (Fafo, 2003, b). Palestinian refugees in Lebanon are totally dependent for their survival on the services provided by UNRWA, in addition to assistance from bilateral sources channeled through (I) NGOs. Palestinian refugees in Lebanon depend on UNRWA for basic and secondary education, primary health care, social services and emergency interventions, which are provided to all Palestinian refugees living in the country. Most of UNRWA schools, health care centers and social institutions are located in camps. As mentioned earlier, UNRWA is responsible for the provision of basic urban services only within the boundaries of the twelve official camps for Palestinian refugees in Lebanon.

In Lebanon, Palestinian refugees do not benefit from a refugee status; they are considered as 'foreigners' and because they do not have a state, they do not benefit from reciprocity clauses (ECHO, 2008). Reciprocity is a principle that governs internal relationships with foreign residents in one country. According to this principle, favors, benefits, or penalties that are granted by one state to the citizens or legal entities of another should be returned in kind. This situation has impacted Palestinian refugees' access to a number of rights in Lebanon:

Housing and Ownership

Until 2001, Palestinian refugees were entitled to acquire property in Lebanon. However, the majority of refugees did not officially register their properties in the Land Registry. Instead, to prove their ownerships of land, they relied on power of attorneys signed between the seller and the buyer that delegated land property (وكالة غير قابلة للعزل). These contracts were generally certified locally at the Public Notary (الكاتب العدل). Consequently, most houses owned by Palestinian refugees were built without building permits, which makes the legal status of these properties controversial for Lebanese authorities.

On 3 April 2001, the Lebanese Parliament passed Law 296, preventing Palestinian refugees from purchasing property in Lebanon. The amended law also prevented them from inheriting property or registering real estate which they had previously purchased or were buying in installments (ECHO, 2008).

Labour and Employment

The Lebanese Government applies the principle of reciprocity for granting work permits to foreigners in Lebanon. Working with this principle, Palestinian refugees in Lebanon are denied permits to around 74 jobs (LPDC, 2008). As such, Palestinian refugees generally work in the few jobs that do not require work permits from the Lebanese authorities. Most refugees work in construction and manual labour or are employed by UNRWA. The majority of Palestinian refugees work in the informal sector, where they are subjected to discrimination and exploitation especially in the absence of protection rights (Ibid). Refugees suffer from high rates of unemployment. According to UNRWA, the level of drop-outs among Palestinian students has increased due to the limitations imposed on refugees' access to job opportunities (UNRWA, 2008).

Social Security

Palestinian refugees are not entitled to benefit from the Lebanese social security system. According to ECHO (2008), the granting of few work permits to Palestinian refugees does not allow them to benefit from social security, though they have to pay their social security contributions as other workers. For medical treatment and hospitalization, Palestinian refugees depend on UNRWA health care services.

Other Rights

Palestinian refugees face other restrictions in Lebanon. They are legally banned from forming associations. Consequently, NGOs operating in camps and gatherings are either unregistered or registered under Lebanese names. Refugees also have restricted access to public education; alternately they rely on UNRWA for schooling.

In the recent years, official Lebanese policy towards Palestinian refugees has witnessed a change towards

17 See for example Fafo (2003, 2005), ICG (2009), UNRWA (2009) and USCR (1999).

acknowledging the need to improve their conditions, while at the same time stressing the opposition to their permanent resettlement (*tawtin*) in Lebanon. In October 2005, the Lebanese Council of Ministers outlined a new policy to create a committee from various ministries to address the situation of Palestinian refugees in Lebanon. This inter-ministerial committee is known as the Lebanese Palestinian Dialogue Committee (LPDC) (see Box 6 for LPDC mandate). The LPDC has undertaken a number of initiatives to establish Palestinian diplomatic representation in Lebanon, discuss a solution for the case of non-ID Palestinian refugees, propose a plan for reforming the Labour Law and improve living condition in the official camps. As an outcome, the Lebanese Government and UNRWA, in coordination with the PLO, officially launched phase I of the Camp Improvement Initiative (CII)[18] in May 2006.

BOX 6
LPDC Mandate

- Address the outstanding socio-economic, legal and security issues related to the Palestinian refugees residing in Lebanon, in collaboration with UNRWA.
- Develop a mechanism that puts an end to Palestinian armed presence outside camps.
- Initiate dialogue regarding the regulation and control of Palestinian weapons inside camps under the Lebanese sovereignty.
- Study the possibility of establishing diplomatic relations between Lebanon and Palestine.

Source: *www.lpdc.gov.lb*

In line with this improved approach to Palestinian refugees, the Lebanese government showed support for the reconstruction in NBC after the conflict in 2007. When the conflict ended, the Government of Lebanon and UNRWA jointly appealed for international donation for the reconstruction of the camp. In 2009, a decision was issued by the Council of Ministers to expropriate the land where NBC was located as a first step towards reconstruction. In this context, LPDC played a significant role in facilitating government expropriation of land in NBC.

18 For more information, refer to the Review Summary of the CII issued by UNRWA in 2009.

2.3 Palestinian Organizational Structure in Lebanon

Headed by the President of the Palestinian National Authority (PNA), the Palestinian Liberation Organization (PLO) was recognized in 1974 by the UN General Assembly as the sole legitimate representative of the Palestinian population. The PLO went into negotiations with the Lebanese authorities in Cairo in 1969 to agree on a number of issues related to resistance to Israel, the management of camps and Palestinians' rights in Lebanon. The Cairo Agreement allowed for the establishment of local administrative committees, known as Popular Committees, to assume the responsibilities of the management of camps. The PLO, relocating its headquarters to Beirut in 1970, started providing financial and technical assistance to the Popular Committees in order to carry out their functions.

Established in 1969, Popular Committees (PCs) are semi-official organizations that operate in camps and represent camp residents before Lebanese authorities and UNRWA. PCs fulfill local administrative functions such as providing water sources and electricity, coordinating UNRWA activities and managing security in case of thefts and personal disputes (ICG, 2009). It is also common for Palestinian gatherings in Lebanon to have PCs in charge of one or more gatherings (DRC, 2005).

PCs are formed to include a member of each Palestinian political faction present in camps or gatherings. Generally, the PCs include a number of independent representatives who are known to be well-respected persons with influence in the community. Palestinian political factions that mark the Palestinian political landscape in Lebanon could be divided into three broad categories, as introduced by ICG (2009)[19]:

- Members of the Palestinian Liberation Organization (PLO) which was established in 1964. These include Fateh, the Popular Front for the Liberation of Palestine and several other significant factions.
- The Alliance of Palestinian Forces (Tahaluf al-Qiwa al-Felastniyya), known as Tahaluf, founded in 1993 in opposition to the Oslo peace accords between Palestine and Israel. It includes Hamas, Fateh el Intifada and the Popular Front for the Liberation of Palestine – General Command and several other factions.
- Jihad-leaning Islamic groups, which are an assortment of movements that promotes Jihad against Israel. These include factions such as Osbat el Ansar and Jund el Sham.

19 For more detailed information on the Palestinian political scene and factions, see ICG (2009).

It should be mentioned that the distribution of power between the different categories and factions in Lebanon differs from one camp to the other. In some camps, such as Ain el Helwe Camp, more than one PC exist with different affiliations, mainly to the PLO or Tahaluf. Moreover, the influence of PCs varies from one area to the other, with the strongest influential committees being in the South.

In order to carry out its responsibilities, the PC generally divides the camp into sectors indicated by letters or numbers. Each sector (قاطع) has a Sector Committee (SC) formed of the sector dwellers and represented by one member in the PC. In some cases, PCs include the gatherings close to the camps within the camp sectors. It should be noted that camps that are small in area, such as Mieh Mieh Camp in the Saida area in the South, are not divided by the PCs into sectors.

2.4 Distribution of Palestinian Refugees in Lebanon

Under UNRWA's operational definition, "Palestine refugees are persons whose normal place of residence was Palestine between June 1946 and May 1948, who lost both their homes and means of livelihood as a result of the 1948 Arab-Israeli Conflict". The decedents of the original Palestine refugees are also eligible for registration with UNRWA.[20]

According to UNRWA, the total number of registered Palestinian refugees in Lebanon is 422,188[20] (see Box 7 for the status of Palestinian refugees in Lebanon). However, it is believed that the number of registered refugees does not reflect accurately the actual number of Palestinian refugees living in Lebanon; this is due to the fact that UNRWA records do not take into account the decrease in population by migration or deaths and changes in citizenship (Fafo, 2003). Recent surveys and studies in Lebanon estimate the number of Palestinian refugees living in the country to be slightly below 200,000 (Ibid).

Palestinian Refugee Camps

Palestinian refugees living in camps are distributed along a total of 12 official camps in Lebanon, as shown in figure 1 at the end of this section. A camp, according to UNRWA definition, is a "plot of land placed at the disposal of UNRWA by the host government for accommodating Palestine refugees and for setting up facilities to cater to their needs. Areas not designated as such are not considered camps"[20]. It should be mentioned that the total number of official camps in Lebanon was 16 prior to the civil war. Three of these camps (Nabatieh Camp in South Lebanon; Dikwaneh Camp also known as Tal el Zaatar in Beirut area; Jisr el Basah Camp in Beirut area) were destroyed during the civil war and a fourth camp (Gouraud in Baalbeck) was evacuated and its dwellers were transferred to Rashidieh Camp in Tyre. Most recently in 2007, Nahr el Bared Camp (NBC) in North Lebanon was destroyed as a result of military confrontations between the Lebanese Army Forces and Fateh al Islam radical group. UNRWA started reconstruction works in NBC at the end of 2009.

The plots of land on which camps were set up in Lebanon are either public lands or privately owned plots leased by the government from local land owners. According to Fafo (2003), camp households live on land that is either partially or wholly leased by UNRWA (61 percent and 17 percent respectively). Nahr el Bared Camp currently represents the only exception, where the land was expropriated by the Government

BOX 7
Status of Palestinian Refugees in Lebanon

Palestinian refugees living in Lebanon are typically divided into three groups:

Registered Refugees: They are registered with UNRWA and the Lebanese authorities. UNRWA estimated the number to be 400,000. These registered refugees are equally distributed among camps (53 percent) and Palestinian gatherings and residential Lebanese areas (47percent) (UNRWA, 2005).

Non-Registered Refugees: They are not registered with UNRWA but registered with the Lebanese authorities. These refugees are estimated to be around 35,000. They are not registered with UNRWA as they left Palestine after 1948 and took refugee outside UNRWA areas of operation or were not in need (DRC, 2005). UNRWA has been extending its services to this group since 2004.

Non-ID Refugees: They are 3,000 to 5,000 refugees who are neither registered with UNRWA nor with the Lebanese authorities. The majority entered Lebanon between 1970 & 1982 carrying Jordanian passports or Egyptian documents. Since they do not hold any valid documents, these refugees are not entitled to UNRWA services. LPDC, PLO and UNRWA has coordinated meetings with Egypt and Jordan to discuss the legal status of this group and reach a solution (*www.lpdc.gov.lb*).

20 www.un.org/unrwa

of Lebanon to facilitate reconstruction after the NBC conflict. Refugees therefore do not own the lands on which their shelters are built; they only have the right to "use the land for residence"[21]. According to UNRWA, its responsibility in the camps is limited to providing services and administering its installations. The Agency does not own, administer or police the camps "as this is the responsibility of the host authorities"[21]. However, Palestinian camps in Lebanon constitute an exception. Lebanese public institutions such as police and government do not exist within camps; properties and commercial activities are not registered in Lebanese registers and state regulations such as governmental taxes and building regulations do not apply (Samhan, 2008).

Palestinian Gatherings

The definition of a gathering was first introduced in the Fafo Report (2003) to indicate locations outside the camps that accommodate groups of Palestinian refugees. According to Fafo (2003) definition, a gathering:

- Has a population of Palestinian refugees, including Palestinian refugees who are registered with UNRWA and/or the Lebanese government or are not registered;
- Has no official UNRWA camp status or any other legal authority identified with responsibility for camp management;
- Is expected to have clearly defined humanitarian and protection needs, or have a minimum of 25 households;
- Has a population with a sense of being a distinct group living in a geographically identifiable area.

There are no official statistics concerning Palestinian refugees living outside the boundaries of official camps in Lebanon. The Fafo definition of a gathering was adopted by other INGOs, such as DRC (2005) and PU & NRC (2009); these INGOs carried out field assessments that identified a total of forty-two gatherings in Lebanon, as shown in figure 2 at the end of this section. These gatherings are distributed in five main geographical areas as follows: seven in Bekaa Valley, seven in North Lebanon, five in Mount Lebanon (including Beirut), eleven in Saida area and twelve in Tyre area in South Lebanon. It has been estimated that 70 percent of Palestinian households living in gatherings are located on privately owned lands (Fafo, 2003).

Some of the Palestinian gatherings are located on the boundaries of some official camps and form geographic extension of the latter. These gatherings, identified by this research as Adjacent Areas of Palestinian Refugee Camps in Lebanon, will be the focus of the following sections of the report.

21 www.un.org/unrwa

Adjacent Areas constitute Palestinian gatherings that are located along the boundaries of official Palestinian refugee camps and form an extension of the latter (Mouhajarin AA around the Beddawi Camp in North Lebanon)

Figure 1: *Distribution of Palestinian refugee camps in Lebanon*
Note: Palestinian refugee camps are distributed around the main cities in Lebanon.

Figure 2: *Distribution of Palestinian gatherings in Lebanon*

Section III

Profiling the Twelve Adjacent Areas

This section represents the first of two sections that discuss the key findings of the research in Part One of the report. It aims at presenting the twelve Adjacent Areas of Palestinian Refugee Camps identified by the research in Lebanon. This section is divided into two main parts. The first part introduces the definition of an Adjacent Area and profiles the number, location and distribution of the AAs identified. The second part presents a general overview of the history, demography, tenure, boundaries and access, living conditions and organizational structure in the AAs.

1. Identifying the Twelve Adjacent Areas

There are no studies or data that define or particularly target the Adjacent Areas of Palestinian Refugee Camps in Lebanon. In previous studies, AAs have not been differentiated from the other Palestinian gatherings that are not located along the boundaries of official camps. Most AAs were included in the few studies that assessed Palestinian gatherings in Lebanon, namely DRC (2004) and PU and NRC (2009). Like many gatherings, AAs are denied access to public basic urban services since they are informal settlements. However, their unique geographic location along the boundaries of refugee camps have created a number of factors that particularly impacted access to basic urban services in the AAs, these include:

- Misconception of the AAs as parts of the camps they surround, where UNRWA provides basic urban services. This imposes further limitations on the provision of public BUS in these areas.
- A degree of self-management in the AAs (that exists in camps) due to their association with the camps they surround.
- Local organizational and governance structures that are directly linked to those of the Popular Committees in the camps they surround.

- Access to the resources (financial, human and technical) and the web of relationships available to the Popular Committees in the adjacent camps.
- Proximity to both UNRWA and public BUS provided in the adjacent camps and the surrounding villages and towns respectively.

These factors have allowed for the formation of unique governance structures of basic urban services in the AAs and the development of alternative strategies and mechanisms for accessing these services that are particular to these areas. As such, the need arises to understand the specific dynamics and realities that operate in the AAs and shape dwellers' access to basic urban services. For this reason, the research devises a set of criteria for defining Adjacent Areas of Palestinian Refugee Camps as a particular category of Palestinian gatherings in Lebanon. It consequently identifies the presence of twelve AAs distributed around four of the official Palestinian refugee camps in Lebanon[22].

1.1 AA Definition

Based on Fafo's definition of a gathering (see page 35), a set of criteria was developed by UN-HABITAT to define Adjacent Areas of Palestinian Refugee Camps in Lebanon. These criteria are:

- **Location:** An AA is an area located in direct proximity or adjacency along the boundaries of official Palestinian refugee camps.
- **Demography:** An AA is inhabited by a majority of Palestinian refugees (registered and unregistered), with a sense of being a distinct group living in a geographically identifiable area.
- **Tenure:** An AA exhibits informal access to tenure and has no official UNRWA camp status.
- **Access to Basic Urban Services:** An AA witnesses no provision of basic urban services by the state (public agencies and municipalities), UNRWA or other institutions.

1.2 Location of AAs

According to this definition, a total of twelve Adjacent Areas of Palestinian Refugee Camps was identified in Lebanon, as shown in table 1 below.

The Adjacent Areas of Palestinian Refugee Camps are distributed in Lebanon as follows:

- Two AAs are located around the Beddawi Camp in North Lebanon within the administrative boundaries of Beddawi Municipality.
- One AA exists around Nahr el Bared Camp in North Lebanon. Most of it falls within the Municipality of Muhammara and a smaller part falls within the Municipality of Bhannine.
- One AA exists around Mieh Mieh Camp in Saida area, South Lebanon. It falls within the administrative boundaries of Mieh Mieh Municipality.

22 The other eight official Palestinian refugee camps were found not to adjoin any AAs, either due to the lack of immediately surrounding areas around them or due to the incompliance of surrounding areas with the introduced criteria for defining AAs.

Table 1: The Twelve Adjacent Areas of Palestinian Refugee Camps in Lebanon

Camp & Number of Existing AAs	Name of Adjacent Area	Administrative Location
North Lebanon		
Beddawi Camp (2)	Tallet el Mankoubin	Beddawi
	Mouhajarin	Baddawi
Nahr el Bared Camp - NBC (1)	NBC AA	Muhammara & Bhannine
Saida Area		
Mieh Mieh Camp (1)	AA of Mieh Mieh Camp	Mieh Mieh
Ain el Helwe Camp (8)	Baraksat	Mieh Mieh & Saida
	Bustan el Kods and Ouzo	Saida
	Bustan abou Jamil	Saida
	Fadlo Wakim	Saida
	Hay el Sohoun	Darb el Sim
	Jabal el Halib	Darb el Sim
	Sekke	Saida
	Tawari	Saida

- Eight AAs are located around Ain el Helwe Camp in Saida area, South Lebanon. These AAs are administratively located within the boundaries of the municipalities of Saida, Darb el Sim and Mieh Mieh, in descending order.

The location and distribution of the twelve AAs in Lebanon are presented in figure 3 below. More detailed maps are presented in Part Two of the report.

Figure 3: *The twelve Adjacent Areas (AAs) of Palestinian Refugee Camps in Lebanon, as identified by UN-HABITAT*

2. Overview of Adjacent Areas

This section presents a general overview of the AAs, including the following components:

- Formation and Growth
- Population and Demography
- Land Tenure
- Boundaries and Access
- Living Conditions
- Organizational Structure

An overview of the previously stated components are summarized for each AA in table 3 at the end of this section. More detailed information is presented for each AA separately in Part Two of the report.

2.1 Formation and Growth

Most of the AAs were formed during the years of the Lebanese civil war (1975 – 1990). Due to the fighting, many Palestinian families fled their camps, mainly in Tyre - South Lebanon and Beirut, in search of more secure areas around other camps. Other Palestinian families were displaced as a result of the total destruction of their camps in the South and Greater Beirut. Displaced families started building temporary shelters on the empty lands mainly around Beddawi, Mieh Mieh and Ain el Helwe camps. Other AAs were formed prior to the civil war with the demographic expansion and relocation of Palestinian families from the overcrowded camps to the less dense areas around, such as the case of NBC AA in the North and few AAs around Ain el Helwe Camp in the South. The AAs continued to grow around the camps, both horizontally and vertically, until the end of the civil war in 1990 and the reinforcement of law in Lebanon.

2.2 Population and Demography

Given the lack of national statistics and accurate figures that identify dwellers' number in the AAs, the total number of households and population in the AAs is estimated based on figures that were offered and validated by representatives of the local committees. Other figures provided in the assessment reports of DRC (2004) and PU/NRC (2009) are also mentioned per each AA in Part Two of the report.

The average number of households living in the twelve AAs is estimated at around 6,727. Adopting an average household size of 5.3 for Palestinian refugees living in camps and gathering in Lebanon (Fafo, 2005), the

AAs developed around the fringes of camps in search of space for demographic expansion or safer areas during the Lebanese civil war; note the corrugated iron roofs in the AA of Sekke around Ain el Helwe Camp in Saida, which by law are not allowed to be replaced by concrete or other permanent roofs in informal settlements

TABLE 2: Average Population in the Adjacent Areas of Palestinian Refugee Camps in Lebanon

CAMP	ADJACENT AREA		AVERAGE NO. Of HOUSEHOLDS	AVERAGE NO. OF DWELLERS
BEDDAWI	TALLET EL MANKOUBIN		162	859
	MOUHAJARIN		81	429
NBC	NBC AA	Pre-conflict	1,887	10,001
		Post-conflict	3,962	20,999
MIEH MIEH	MIEH MIEH AA		135	716
AIN EL HELWE	BARAKSAT		615	3,260
	BUSTAN EL KODS & OUZO		256	1,357
	BUSTAN ABOU JAMIL		80	424
	FADLO WAKIM		88	466
	HAY EL SOHOUN		150	795
	JABAL EL HALIB		350	1,855
	SEKKE		473	2,507
	TAWARI		375	1,988
TOTAL	Pre-NBC conflict		4,652	24,656
TOTAL	Post-NBC conflict		6,727	35,653

Notes:
The average number of households were collected in interviews with the local committees and camp PCs
For calculating the number of dwellers, an average family size of 5.3 was used (source: Fafo, 2005)

total population in AAs is estimated at 35,653.[23] These figures represent the current number of dwellers in the AAs including those who have relocated to NBC AA after the NBC conflict. Prior to the NBC conflict, the average number of households in the twelve AAs could be estimated at around 4,652 (24,656 dwellers).

In general, AAs are inhabited by Palestinian families; however, some AAs also include smaller numbers of dwellers from other nationalities, mainly Lebanese. The total estimated number of households and inhabitants living in the twelve AAs, before and after the NBC conflict in 2007, is presented in table 2 above.

2.3 Land Tenure

Land ownership in the AAs is complex and varies from one AA to the other. While all AAs represent informal settlements, the scale of informality varies across these areas. Most AAs were illegally built on occupied public lands and/or plots privately owned by Lebanese residents. Other cases exist where dwellers purchased the lands or houses from the original owners but did not officially register their properties in the Land Registry. Instead, they depended on power of attorneys signed by the seller and the buyer at the public notary or on verbal agreements. These cases are particular to NBC AA in the North and parts of Hay el Sohoun and Jabal el Halib AAs around Ain el Helwe Camp in the South. In NBC AA, dwellers purchased the plots of land from the original owners and built their houses, without official registrations or building permits. Similarly, in Jabal el Halib and Hay el Sohoun, some dwellers bought the houses from the original Lebanese owners but did not register them officially.

23 Data on household size of Palestinian refugees living in camps and gatherings in Lebanon are generally limited in number. These include reports by UNRWA, Fafo, MAP, Movimondo and DRC. According to these agencies, the household size of Palestinian refugees living in camps and gatherings in Lebanon varies from 5.5 to 4.9. For the sake of this research, the figure provided by Fafo (2005), 5.3, will be used since it is the most consistent with the research findings in the field.

2.4 Boundaries and Access

In general, the AAs constitute a geographic extension of the camps they surround. AAs surrounding Beddawi and Nahr el Bared camps in the North are separated from the camps they surround by secondary internal roads. The boundaries of the AAs surrounding Mieh Mieh and Ain el Helwe camps in the South are more diffused and intertwined with those of the camps.

With the exception of the AAs surrounding Beddawi Camp, AAs are clearly separated from their immediate surroundings in the neighboring villages and towns. This separation could be either natural, due to topography and natural features, or manmade due to the implementation of major roads or security devices by the Lebanese Army Forces (LAF). AAs surrounding Nahr el Bared, Mieh Mieh and parts of Ain el Helwe camps are physically separated from the domain of the surrounding villages and towns by concrete or wire fences installed by the LAF for security procedures.

With the exception of the AAs surrounding Beddawi Camp, access to the AAs is demarcated by checkpoints installed by the LAF and the PLO at one or more entrances that lead to the camps. Access to NBC AA is currently conditioned by obtaining access permits and/or going through on-site investigations by the Lebanese Army Intelligence.

2.5 Living Conditions

In general, dwellers in the AAs share the living conditions experienced by other Palestinian refugees in Lebanon. For educational, health and social services, they depend on UNRWA in addition to a number of NGOs that operate mainly in camps. However, dwellers in the AAs face additional hardships due to the lack of basic urban services provided by local authorities or by UNRWA. In order to access BUS, dwellers in the AAs depend on self-help individual and collective initiatives. Alternative methods applied are informal and generally associated with problems of inadequacy and environmental/health risks. As mentioned earlier, the current access to BUS in NBC AA constitutes an exception, where UNRWA is temporarily leading the provision of BUS as part of its Emergency Programme implemented after the NBC conflict.

Housing conditions are generally poor in the AAs since most houses were built as temporary shelters by dwellers without any assistance from UNRWA or other organizations. Some shelters in the illegally inhabited AAs are covered with temporary corrugated iron (zinco) roofs, which, under the Lebanese Law, cannot be replaced by permanent concrete roofs.[24]

24 Refer to DRC (2005) and PU/NRC (2009); most AAs are included within their shelter assessment in Palestinian gatherings.

Many AAs are physically separated from their surrounding villages and towns; note the barbed wire fence separating the AA of Mieh Mieh Camp from its surrounding as part of the security measures undertaken by the Lebanese Army around the camp

Living conditions are generally deteriorated in the AAs (Tallet el Mankoubin AA around Beddawi Camp in North Lebanon)

2.6 Local Organizational Structure

In general, the local organizational structure in the AAs is associated with that of the camps they surround. Some of the AAs form separately defined geographical entities that are considered by the Popular Committees in the camps as 'sectors' following the camps. Other AAs are geographically more integrated with the camps they surround and are considered part of existing camp sectors. AAs are internally managed by local committees generally formed under the wider organizational structure of the Popular Committees in the adjacent camps. These local committees vary in structure as follows:

- A Sector Committee (SC) (لجنة قاطع) that is organized under the structure of the PC in the camp. This case is particular to the AAs that constitute sectors at their own.
- A Neighborhood Committee (NC) (لجنة حي) that represents dwellers in the AA in a SC of the camp. This case is particular to the AAs that are included within existing camp sectors.
- An Independent Popular Committee (PC) (لجنة شعبية) that generally coordinate its works with the PC in the camp.

Local committees are generally formed through consensus among dwellers in the AAs to include well-respected and active members. These committees are responsible for managing the sectors of electricity and sometimes water under the wider structures of the camp PCs. For this purpose, the local committees have initiated local funds fed through small monthly financial contributions from households in the AAs. In case of larger-scale implementation works, the committees collect additional contributions from households and resort to the camp PCs for complementary financial support channeled from the PLO. The camp PCs also extend the responsibilities of workers hired by them to some AAs.

The PLO has significantly contributed to the implementation of electricity, sewage and road networks in the AAs. In adition cases, the local committees resort to Palestinian political factions, mainly Fateh and Hamas, for financial and technical support. The power and influence of the local committees vary from one AA to the other according to the relationships and networks they form with other stakeholders, mainly with Lebanese political figures.

TABLE 3: A General Overview of the Twelve Adjacent Areas of Palestinian Refugee Camps in Lebanon

CAMP	ADJACENT AREA	OVERVIEW				
		MUNICIPALITY	DEMOGRAPHY / HOUSEHOLDS #	HISTORY OF FORMATION	LAND OWNERSHIP	ORG. STRUCTURE
BEDDAWI	TALLET EL MANKOUBIN	Beddawi	162 Palestinian households (few Lebanese households)	Created since 1982 with waves of displacements from other camps mainly in South Lebanon	Lebanese owners-private land	NC represented in 2 SCs of camp
	MOUHAJARIN	Beddawi	81 Palestinian households	Created since 1982 with waves of displacements from other camps mainly in South Lebanon	PLO land-registered under the name of the Awkaf	NC represented in 1 SC of camp
NBC	NBC AA	Muhammara & Bhannine	Pre-conflict: 1,780 Palestinian & 200 Lebanese Post-conflict: 3,800 Palestinian & 200 Lebanese	Formed mainly in 1984-1986 as a demographic expansion of NBC	Land owned by AA dwellers (un-officially registered)	3 SCs (E, F & Mouhajarin) represented in the camp PC
MIEH MIEH	MIEH MIEH AA	Mieh Mieh	130-140 Palestinian households	Developed in 1980s after the destruction of the original camp and with waves of displacements from other camps	Lebanese owners-private land & municipal land	No formal organizational structure - Managed by camp PC
AIN EL HELWE	BARAKSAT	Mieh Mieh (small part in Saida)	555 Palestinian households; 60 Lebanese households	In 1969 – 1970 Palestinian families purchased houses from Lebanese families; developed in 1980s	Lebanese owners-private land & public land	Independent PC represented in the camp PC
	BUSTAN EL KODS & OUZO	Saida	Bustan el Kods: 216 Palestinian households Ouzo: 40 Palestinian & Syrian households	Created since 1982 with waves of displacements from other camps	Lebanese owners-private land	SC represented in the camp PC
	BUSTAN ABOU JAMIL	Saida	80 Palestinian households	Developed from orchard in 1980s with waves of displacements from other camps	Lebanese owners-private land	No formal organizational structure
	FADLO WAKIM	Saida	75 - 100 Palestinian households	Developed in 1980s with waves of displacements from other camps	Lebanese owners-private land	Managed with SC of Sector 5 of camp
	HAY EL SOHOUN	Darb el Sim	150 Palestinian households	In 1970s Palestinian families started purchasing houses from Lebanese families; developed in 1980s	Mixed ownerships by AA dwellers (un-officially registered) & Lebanese owners - private land	Managed with SC of Sector 2 of camp + NC
	JABAL EL HALIB	Darb el Sim	350 Palestinian households (few Syrian households)	In 1970s Palestinian families started purchasing houses from Lebanese families; developed in 1980s	Mixed ownerships by AA dwellers (un-officially registered) & Lebanese owners - private land	Independent PC represented in the camp PC
	SEKKE	Saida	400 - 425 Palestinian households; 60 Lebanese; Gypsy & Syrian households	Created in 1976; developed from orchard in 1980s; a part was evacuated & destroyed	Public land	SC represented in the camp PC
	TAWARI	Saida	350 - 400 Palestinian households	Created in 1948 as a camp before Ain el Helwe Camp; developed starting 1956 for additional refugees	Public land	Independent PC

Note: Households figures used are from local sources
Note: 1980s is the period of the Lebanese Civil War (1975 - 1990)
PC: Popular Committee
SC: Sector Committee
NC: Neighbourhood Committee

Section IV

Accessing Basic Urban Services in the Adjacent Areas

Access to basic urban services constitutes a major concern for dwellers in the Adjacent Areas of Palestinian Refugee Camps in Lebanon. Living in informal settlements distributed along the fringes of official camps, dwellers in the AAs are excluded from public basic urban services provided in the surrounding areas as well as from UNRWA basic urban services provided in camps. As an alternative mechanism, dwellers rely on informal self-help initiatives to access and maintain BUS. While in the absence of other options, these informal practices work to ensure dwellers' access to BUS, the services themselves are inadequate, unsustainable and characterized by huge gaps and shortfalls.

This section investigates the main elements that characterize access to basic urban services in the Adjacent Areas of Palestinian Refugee Camps in Lebanon. It starts by discussing the self-help initiatives employed by dwellers in the AAs to access and maintain BUS. The discussion of these initiatives reveals the governance structures of BUS in the AAs, highlighting dwellers' strategies, actions, mechanisms and relationships with other stakeholders as well as the roles of those stakeholders. The section then presents a summary of the methods, i.e. the technical ways, used to access each sector of BUS in the AAs and discusses the financial aspects involved. Finally, this section presents the general state that characterizes each sector of BUS in the AAs.

The analysis in this section combines data collected from the twelve AAs in order to construct general aspects and patterns that characterize access to basic urban services in the AAs. More detailed information is provided separately for each AA in Part Two of the report. The terms related to BUS used in this section are defined and explained per each service sector in 'Annex 1, Glossary of BUS Terms' at the end of this report.

1. Self-Help Initiatives

Dwellers in the AAs rely on a set of self-help initiatives in order to access and maintain basic urban services in the sectors of water provision, sewerage, solid waste management, electricity and road networks. These alternative mechanisms represent a form of contextual knowledge developed by the dwellers to respond to their situation and needs concerning access to BUS in the AAs. In her study of self-help provision of water and electricity in Raml al-'Ali informal settlement[25], Khayat (2008) explains that this form of knowledge is acquired and developed by dwellers over years in response to the growth of their neighborhood, the changing governmental regulations and the emerging political authorities. Similarly, these factors, in addition to the changing Lebanese/Palestinian relationships over the years, have impacted the formation of the strategies and mechanisms employed by dwellers in the AAs to access and maintain basic urban services.

25 Raml al-'Ali is an informal settlement in the southern suburb of Beirut inhabited by a majority of Lebanese families who came from Baalbeck in the 1950s and the South during the civil war (1975 – 1990).

The self-help initiatives used by dwellers in the AAs to access and maintain alternative basic urban services are:

- Direct implementation of basic urban services;
- Tapping into surrounding services and infrastructure;
- Forming local committees under the camp PC structures;
- Pooling of financial resources; and
- Employing relationships with other stakeholders.

1.1 Direct Implementation of Basic Urban Services

In order to access and maintain basic urban services in the AAs, dwellers resort to direct implementation and repair works. These direct interventions undertaken by dwellers occur either as individual or collective efforts. In order to carry out these works, dwellers hire local technicians or use their own technical skills acquired over the years. When dwellers first arrived to the AAs,

Self-provision of communal/private solid waste collection service in the AA of Baraksat around Ain el Helwe Camp in South Lebanon

they acted immediately to provide for their urgent BUS needs such as water provision and sewage disposal. The implemented networks are still being used in the AAs and the employed methods continue to occur with the need to secure additional water sources or sewage disposal.

Dwellers in the AAs resort to the direct implementation of water, sewage, electricity and road networks. They carry out works to dig private and community water wells (boreholes); establish individual or collective sewage septic tanks or networks; pave streets and alleys with concrete mixes; and connect to electricity networks. In most cases, dwellers connect the infrastructure networks in the AAs to those in the immediate surrounding (adjacent camps and municipal areas), as discussed hereafter. For repairs to these networks, dwellers carry out the works themselves using their technical skills or hire technicians.

Similarly, in the AAs where no stakeholder manages solid waste collection and disposal, dwellers depend on private local initiatives to implement this service. Solid waste is collected by assigned dwellers or private service providers in the AAs for an exchange of monthly fees paid by subscribed households.

A young dweller resorting to unblocking sewage congestion by manually breaking manholes

1.2 Tapping into Surrounding Services and Infrastructure

In order to secure access to basic urban services, dwellers in the AAs also resort to tapping into the surrounding services and infrastructure networks in the adjacent camps or the neighboring municipal areas. Dwellers informally connect their houses to surrounding water, sewage and electricity networks mainly in the camps but also in the surrounding villages and towns. This mechanism occurs without prior planning or coordination with UNRWA or the municipalities. The ad-hoc methods of connection result in repetitive damages to infrastructure networks in the camps, the AAs and the neighboring municipal areas and increased risks to public and environmental health.

Direct implementation of water networks by dwellers in the AA of Jabal el Halib around Ain el Helwe Camp

Informal connection to water and sewage networks in the AAs is done manually, generally by making cracks in the main surrounding networks to fix or weld pipes that connect to the houses. For repairs to these networks, dwellers use basic methods, e.g. tying the broken and pricked pipes with rubber pieces and replacing the damaged parts with different sized pipes that are not properly connected to the rest of the networks. Dwellers also resort to hooking their houses to the surrounding electricity networks mainly in the camps but also in surrounding municipal areas. They do so by connecting exposed and unshielded cables to the surrounding electric cables, poles or transformers. For repairs in the electricity networks, dwellers usually replace the damaged parts of the cables alone, which results in loose cables and reduced electric conductivity. In addition to regular damages to the main networks and repetitive cut-offs, informal electric connections create public safety hazards. It should be noted that electric hooking has dramatically decreased after the

organization of electricity provision in the AAs by the camp PCs and the local committees in the AAs.

For solid waste management, dwellers and local private service providers in some AAs use nearby UNRWA or municipal containers to throw their garbage bags. Since the number of these containers is planned to collect wastes generated by a fewer number of households, waste generally accumulates outside the containers on the streets.

1.3 Forming Local Committees Under the Camp PC Structures

With the support of Popular Committees (PCs) in the adjacent camps, dwellers in the AAs[26] formed local committees to respond to their daily needs and concerns. Generally operating under the wider organizational structure of the camp PCs, local committees manage and maintain basic urban services in the AAs, mainly the two sectors of electricity and water. These committees play an essential role in operating water stations, organizing electricity provision, installing main electricity networks and carrying maintenance works to the sewage networks in the AAs.

To carry out its responsibilities, each local committee operates a local fund fed through small monthly contributions from households in the AA, as explained hereafter in 1.4. In addition, local committees benefit from access to the financial, technical and human resources available to the camp PCs. It is common for the camp PCs to extend the operation of their hired workers to some AAs. These workers receive humble monthly compensations, called 'rewards', of 50,000 LBP (33.3 USD) from the camp PCs, in addition to equal amounts matched by the local committees in the AAs from the local funds.

The influence and responsibilities of the local committees vary from one AA to the other. Influential local committees are those that enjoy wide arrays of relationships with public and private stakeholders, which benefits them for facilitating BUS interventions in the AAs. It is not uncommon for the well-established local committees to provide support or extend some services to other AAs.

1.4 Pooling of Financial Resources

For interventions related to the implementation and repair of BUS, dwellers resort to the pooling of financial resources. This is done either as monthly contributions paid to the local funds or as irregular contributions collected among a number of dwellers.

For regular operation and maintenance works to BUS in the AAs, the local committees collect monthly financial contributions from households to feed local funds. These monthly contributions range from 2,000 to 3,000 LBP (1.3 to 2 USD) per household[27]. Money from the funds is used to pay small monthly compensations to workers and to cover daily operational and maintenance costs. It is common for the local committees to exempt the most vulnerable and poorest households from paying.

For implementation or repair works targeting groups of neighboring houses, dwellers take the initiative of collecting financial contributions among each other to execute the works or hire technicians. This mechanism is mainly used for implementing collective septic tanks and sewage networks, digging community wells, paving roads and carrying out repairs to the sewage and electricity networks.

For interventions that target most or all households in the AAs, dwellers pay additional contributions to the local committees, which manage the necessary implementation or renewal works. In case of large-scale interventions, such as the renewal of electricity networks, the local committees mobilizes additional financial resources from the PCs in the adjacent camps. The PCs secure their financial contributions mainly from the PLO. Sometimes, dwellers and the local committees resort to collecting financial donations from the Palestinian political factions or from affluent Palestinian families living in the surrounding areas of the AAs.

26 For information on the types and structures of these local committees, refer to page 43.

27 Interviews with PCs in camps and the local committees in the twelve AAs.

An example of organized electricity provision by the local committee in Fadlo Wakim AA around Ain el Helwe Camp (compare to unorganized electricity provision on p.63)

1.5 Employing Relationships with Other Stakeholders

In order to secure and/or improve dwellers' access to basic urban services in the AAs, Popular Committees in the camps and local committees in the AAs resort to employing their relationships and networks with other stakeholders. The local committees, either directly or through the camp PCs, resort to the different public and private stakeholders for financial or logistical support to facilitate BUS interventions. These committees use their "understanding of the political landscape" in Lebanon to select the appropriate stakeholders for each type of interventions (Khayat, 2008).

It should be mentioned that Popular Committees in the camps and local committees in the AAs do not enjoy direct connections to the web of international donor agencies. This, in addition to limited human and technical resources, minimizes their capacities to mobilize large funding for the implementation of BUS projects and infrastructure networks in the AAs. Instead, these committees rely on smaller financial contributions secured mainly from the Palestinian Liberation organization (PLO) in Lebanon. Other financial contributions are secured from the Palestinian political factions active in the camps and the AAs. For logistical support to facilitate the implementation or repairs of BUS, the popular and local committees employ their relationships with other private as well as public stakeholders. Private stakeholders include UNRWA CSOs in the adjacent camps and prominent Lebanese political leaders in the surrounding towns and villages. Public stakeholders include public service agencies and municipalities that accommodate for the AAs. The relationships that tie the local communities in the AAs to these stakeholders and the role of each stakeholder are summarized below.

PLO and Palestinian Political Factions

For neighborhood-scale interventions of basic urban services, dwellers in the AAs mainly rely on the PLO for financial support. Formed under the structure of the camp PCs, the local committees request complementary funding from these PCs, which is generally provided from the PLO. The relationship between the local community and the PLO could be described as collaborative, where the two join financial resources for implementing interventions of BUS in the AAs. The PLO contributed to the implementation of sewage networks and to the installation of main electricity networks and transformers in the AAs. The costs of such interventions are usually shared between dwellers in the AAs and the PLO.

It is not uncommon for the local committees in the AAs to seek support from the different Palestinian political factions in the camps, mainly the bigger factions such as Fateh and Hamas. These political factions have contributed financial and technical resources mainly for the implementation of water stations and the paving of roads in the AAs.

UNRWA

For interventions related to basic urban services, dwellers in the AAs resort to UNRWA Camp Service Officers (CSOs) in the adjacent camps. Dwellers turn to the CSOs mainly to request UNRWA intervention in collecting solid waste and unblocking congested sewage pipes and manholes. According to representatives of the local communities, most CSOs exhibit sympathy to their needs. Dwellers use a number of strategies to collectively exert pressure on UNRWA to perform these services. These strategies vary from repetitive requests and presenting signed letters to collective lobbying. Local committees and main PCs in camps usually present support either through participating or through offering their consent.

In case of instantly needed services, such as the unblocking of sewage networks, UNRWA provides help to dwellers upon the availability of its workers. For long-term services, such as solid waste collection, a process of negotiation occurs between dwellers and their representatives on the one side and UNRWA on the other. Local committees or groups of dwellers resort to the CSOs, who in turn communicate the requests to UNRWA administration in the areas in which the camps are located. UNRWA sometimes agrees to provide full solid waste collection service or partial service (collecting waste from external or main streets only) in the AAs. According to representatives of the local communities, UNRWA responds to their requests in order to maintain good relationships with them and to secure stability in the camps and their Adjacent Areas.

Since Popular and local committees are not connected to the web of international donor agencies, UNRWA CSOs sometimes play the role of mediators to facilitate the implementation of BUS projects in the AAs. The CSOs play an important role in bringing the attention of the representatives of donor agencies visiting the camps to the urgent problems and needs in the surrounding AAs through discussions and field visits. This has lead in some cases to the extension of BUS projects targeting camps to the surrounding AAs or to the funding of BUS projects that specifically target the AAs.

Political Leaders and Figures

Given their long term understanding of the political context in Lebanon, popular and local committees in the camps and the AAs employ their relationships with prominent Lebanese political leaders to improve access to BUS in the AAs. It should be mentioned that some committees enjoy stronger connections to political leaders than others, such as the case in Ain el Helwe Camp and its AAs. These committees seek to maintain good relationships with the active political leaders in Saida who exhibit different political affiliations. According to representatives of the local communities, these competing political leaders are interested in enforcing their affiliations with the powerful Palestinian factions, winning the votes of the Lebanese residents who live in the camps and fostering stability in the camps and their surroundings. On the other hand, the local communities benefit from the connections of these political leaders to public service agencies and municipalities, which facilitate interventions that improve access to basic urban services in the AAs. These interventions are mainly related to the sector of electricity, sewage and water, as mentioned hereafter.

Public Service Agencies

Electricite du Liban (EDL) is the only public service agency that provides services in the AAs. Electricity services are provided directly by EDL in two AAs (NBC AA and Tallet el Mankoubin in Beddawi) mainly through regular meters and few circuit breakers. This case is common to other informal settlements in Lebanon, which shows that "EDL exhibits more tolerance towards informality" than other state agencies and government institutions (Khayat, 2008). In these AAs where EDL directly provides electricity to households, the agency collects subscription fees and monthly consumption bills through its employees. In such cases, dwellers and local committees in the AAs have a direct relationship with the agency, which they contact in case of requested repairs. According to representatives of the local communities, EDL intervenes for repairing transformers and high voltage lines but not the networks in these AAs. The local committee in Tallet el Mankoubin explains this by the fact that the transformers and high voltage lines are used to provide electricity to the surrounding towns and villages as well. In case of major gaps and needs, the local committees

UNRWA informally extends some BUS to the AAs, note the collective water manifold and the solid waste container in the AA of Mieh Mieh Camp

in the AAs and the Popular Committees in the camps schedule meetings with EDL offices in the regions (EDL office in Halba and Kadisha office in Beddawi). According to these committees, the regional offices respond positively to their requests and "sympathize" with their problems. In case the problems were not solved in these offices, the committees are referred to EDL headquarters in Beirut.

In the other AAs, electricity is provided from the camp networks or through transformers installed in the AAs, both ultimately supplied from one source: EDL. However, the organization, implementation and maintenance of electricity networks in these AAs fall under the responsibility of the popular and local committees and not EDL. In such cases, households do not pay subscription fees or monthly consumption bills to EDL and the relationship between the local communities and EDL does not take a direct form. Instead, EDL provides some informal interventions in these AAs, mainly located around Ain el Helwe and Mieh Mieh camps, as 'favors' requested by Lebanese political leaders. These interventions mainly include logistical and technical support to install transformers and connect main electricity networks in the AAs.

The relationships of the local communities in the AAs to the Water Authorities (WAs) and the latter's interventions are less frequent compared to EDL. For example, the WAs regional office in Saida has overlooked the informal connections by dwellers in some AAs surrounding Ain el Helwe Camp due to requests from Lebanese political leaders in the area.

Municipalities

Municipalities that accommodate for the AAs generally perceive these areas to be linked to the self-managed camps they surround. They have little information about methods of accessing basic urban services, the state of these services and the providers in the AAs. Generally, the relationships between the local communities in the AAs and the municipalities are characterized by lack of information and communication. There exist no formal mechanisms for information exchange or coordination of interventions between the two entities. Interviewed mayors and municipal members explain the rationale behind municipal absence in providing services in the AAs by a number of factors, including:

- Respecting the Lebanese law that prohibits the provision of basic urban services in informal settlements.
- Limited financial, technical and human resources at the municipalities, which impacts the delivery of basic urban services even in the formal residential areas located within their boundaries.
- Lack of security in most camps and AAs and the absence of state control.
- Restricted physical access to some AAs by fences and army checkpoints, installed as part of the security measures undertaken by the Lebanese Army Forces (LAF) around some camps and NBC AA.
- Complicated procedures for granting public employees permits to access the LAF checkpoints around some camps and AAs.

The occupation of land in some AAs have negatively affected local positions regarding the implementation of infrastructure projects in the AAs. Some interviewed mayors explained their hesitations to support such projects given their responsibility and accountability towards the local residents whose properties have been occupied. Their willingness to grant works permissions or to facilities the approval of original owners is challenged by local concerns that such projects might prolong or reinforce the current occupations. The approval of the municipalities on infrastructure and shelter rehabilitation projects in the AAs only happens after establishing an understanding with the local communities that these interventions do not grant them 'ownership rights' or make their accommodation 'permanent'.

Moreover, the lack of comprehensive plans that involve these municipalities in infrastructure projects targeting the AAs and address the impact of these projects on the municipal networks poses an additional local concern. Some mayors complained that newly implemented sewage networks in some AAs were ultimately connected to the municipal networks without coordination with the municipalities. This contributes to worsening the state of basic urban services in the residential areas that fall under the responsibility of the municipalities, which already suffer from problems and shortfalls.

These factors have sometimes led to local resistance at the municipal level to infrastructure projects targeting AAs, mainly around Ain el Helwe Camp. In response, the local communities in these AAs resorted to collective lobbying and negotiation with active political leaders in Saida to allow for the implementation of these projects. It should be noted that stronger relationships exist between the local communities in the AAs surrounding Ain el Helwe Camp and the Municipality of Saida. In many cases, popular and local committees in Ain el Helwe Camp and the AAs resort to the Mayor of Saida to facilitate the approval of other municipalities and owners on infrastructure projects targeting these AAs.

More detailed information on the dynamics of relationships between the local communities in the AAs and the relevant municipalities are discussed individually for each AA in Part Two of the report.

A sewage pipe discharging without proper connection from Hay el Wadi in Mieh Mieh AA to the surrounding Mieh Mieh village in South Lebanon

2. Methods of Accessing Basic Urban Services in the AAs

The methods used for accessing basic urban basic services vary from one AA to the other and sometimes within the same AA. A summary of the methods used for accessing BUS and the involved stakeholders are presented per each AA in table 4 hereafter. NBC AA constitutes an exception, where UNRWA is currently providing temporary BUS as part of its Emergency Programme after the NBC conflict in 2007.

In parallel to table 4, the technical methods adopted by dwellers and other stakeholders in the AAs to access BUS are classified, in illustrations, per each service sector. These illustrations (figures 4 to 8) aim at further explaining the information in table 4 and present the methods adopted for accessing BUS in the AAs in descending order from the most to the least prevalent. Each method is given a number in these illustrations; the same numbers appear in table 4 to indicate the relevant methods used in each AA.

For more detailed information, refer to the sections discussing 'Access to Basic Urban Services' for each AA in Part Two of this report. For more information on the terms used in these illustrations, refer to 'Annex 1 – Glossary of BUS Terms' at the end of the report.

TABLE 4: Summary of Methods Used for Accessing Basic Urban Services in the AAs

CAMP	ADJACENT AREA	BASIC URBAN SERVICES				
		WATER PROVISION	SEWERAGE	SOLID WASTE	ELECTRICITY*	ROADS
BEDDAWI	TALLET EL MANKOUBIN	(Method 1) Managed by PC: well, water tower, network and collective manifolds by UNICEF; house connections by dwellers	(Method 3) Septic tanks by dwellers (Method 2) Network by dwellers	(Method 3) No method	(Method 3) EDL meters (Method 5) EDL circuit breakers	Unpaved (Method 1) Concrete by PC & dwellers
	MOUHAJARIN	(Method 1) Managed by UNRWA: well and water tower by UNICEF; network and collective manifolds by UNICEF and CISS; house connections by dwellers	(Method 1) Network by PLO and UNICEF	(Method 2) Partial UNRWA service	(Method 1) PC camp network	(Method 1) Concrete by PC, CISS & dwellers
NBC	NBC AA	(Method 1) Managed by UNRWA: wells by UNRWA; new water towers and collective manifolds by UNRWA and NGOs; house connections by dwellers	(Method 1) Rehabilitated network by NGOs/UNRWA	(Method 1) UNRWA service	(Method 3) EDL meters	(Method 2) Asphalt by UNRWA & MercyCorps (Method 2) Concrete by UNRWA & MercyCorps
MIEH MIEH	MIEH MIEH AA	(Method 1) Managed by UNRWA: well by PLO; water tower, network and collective manifolds by UNRWA; house connections by dwellers	(Method 1) Network by UNRWA	(Method 1) UNRWA service	(Method 1) PC camp network	(Method 2) Asphalt by UNRWA (Method 1) Concrete by UNRWA Unpaved
AIN EL HELWE	BARAKSAT	(Method 1) Water Station managed by WAs in Saida and Network managed by PC: well and water tower by PLO; rehabilitated network and collective manifolds by PU; house connections by dwellers (Method 3) Informal connections to Saida Network by dwellers	(Method 1) Rehabilitated network by PU	(Method 4) Private service provision	(Method 1) PC camp network	(Method 2) Asphalt by PLO& PU (Method 1) Concrete by dwellers & PU
	BUSTAN EL KODS & OUZO	(Method 2) Managed by SC: well by PLO and dwellers; network by PLO; house connections by dwellers	(Method 2) Network by PLO (Method 4) Informal connections to camp network by dwellers	(Method 2) Partial UNRWA service	(Method 1) PC camp network	(Method 1) Concrete by dwellers
	BUSTAN ABOU JAMIL	(Method 3) Informal connections to camp network by dwellers	(Method 3) Septic tanks by dwellers (Method 2) Network by dwellers	(Method 3) No method	(Method 1) PC camp network (Method 4) Informal hooking	(Method 1) Concrete by dwellers & UNRWA Unpaved
	FADLO WAKIM	(Method 2) Water Station Managed by PC: well by PLO; network by UNICEF; house connections by dwellers	(Method 2) Network by dwellers	(Method 2) Partial UNRWA service	(Method 1) PC camp network	(Method 1) Concrete by dwellers
	HAY EL SOHOUN	(Method 4) Water Station managed by PC and network managed by SC: well by UNICEF; water tower by PFLP-GC; network and house connections by dwellers	(Method 2) Network by dwellers	(Method 1) UNRWA service	(Method 1) PC camp network	(Method 2) Old asphalt by Municipality (Method 1) Concrete by dwellers
	JABAL EL HALIB	(Method 3) Informal connections to camp network by dwellers (Method 2) Wells and network by dwellers	(Method 4) Informal connections to camp network by dwellers (Method 3) Septic tanks by dwellers (Method 2) Network by dwellers	(Method 1) UNRWA service (Method 4) Private service provision	(Method 1) PC camp network	(Method 2) Asphalt by NGOs (Method 1) Concrete by dwellers Unpaved
	SEKKE	(Method 2) Managed by SC: new well, network and house connections by PARD	(Method 2) Network by dwellers (Method 1) Rehab. network by PU (Method 1) Collector by Saida Municipality (to be connected) (Method 3) Septic tanks by dwellers	(Method 3) No method (Method 4) Private service provision	(Method 1) PC camp network	(Method 1) Concrete by PU & dwellers
	TAWARI	(Method 3) Informal connections to Saida Network by dwellers (Method 2) Network informally connected to well in camp by dwellers	(Method 1) Network by UNRWA	(Method 2) Partial UNRWA service	(Method 4) Informal hooking	(Method 1) Concrete by dwellers

* In the Electricity Sector, subscriptions in private service generators is not listed (method number 2 from figure 7), since it occurs in all AAs depending on the financial situation of each household.

2.1 Water Provision

Water is provided to households in the AAs mainly from wells (boreholes) that are located in the camps or the AAs. Wells located in the camps are under the management of the camp PCs or UNRWA, while those located in the AAs are managed by the local committees under the wider structure of the camp PCs. Water pumping from the wells to the networks occurs with or without the intermediate presence of collective water tanks (towers) and/or collective manifolds, as shown in figure 4 below. Dwellers have worked, individually and collectively, to connect their houses to the water sources using under-ground or above-ground plastic and metal pipes. In other cases, dwellers in the AAs resort to informally connecting their houses to the camp and municipal networks established by UNICEF/ UNRWA and the Water Authorities respectively. Some international and local NGOs have rehabilitated and upgraded the water networks in some AAs, as detailed in Part Two of the report.

The methods used for accessing water provision in the AAs are summarized in figure 4 below in descending order from the most to the least occurring (note that in water provision, methods 1 and 2 are equally used in the AAs).

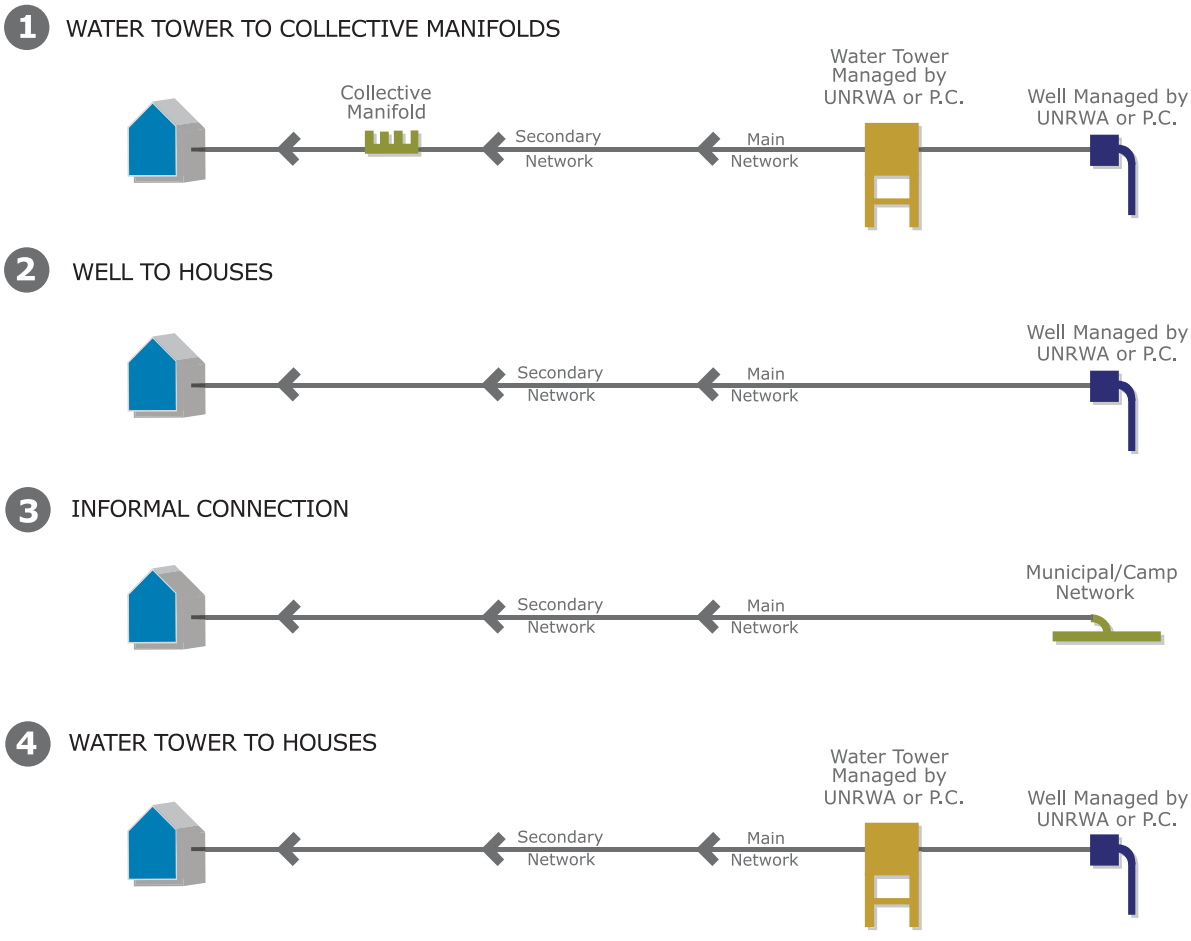


Figure 4: *Methods of water provision in the AAs*

2.2 Sewerage

Dwellers in the AAs use different methods for sewage disposal. Generally, dwellers have informally connected their houses to the surrounding camp or municipal networks or have implemented their own private networks. These private networks ultimately connect to the surrounding networks or discharge in the nearby agricultural lands, rivers or the sea without proper treatment. Some sewage networks have been implemented or upgraded by INGOs and UN agencies (UNRWA and UNICEF) in some of the AAs. In other AAs, dwellers still use septic tanks that they individually or collectively dig and build for sewage disposal.

The methods used for sewage disposal in the AAs are summarized in figure 5 below in descending order from the most to the least occurring (note that for sewage disposal, methods 1 and 2 are equally used in the AAs).

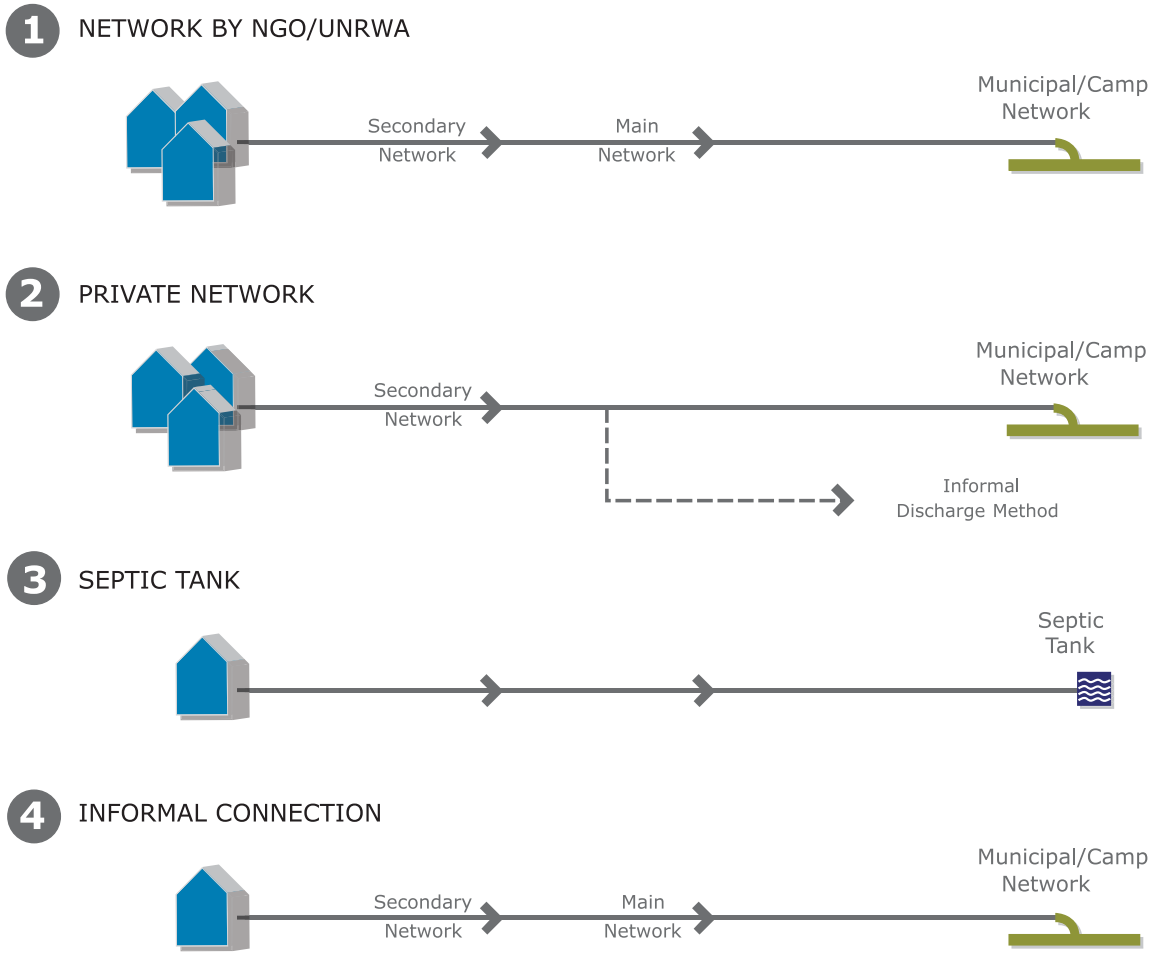


Figure 5: *Methods of sewage disposal in the AAs*

2.3 Solid Waste Management

Solid waste is managed in the AAs in a variety of methods. In some AAs that are closer to the camps, UNRWA provides complete or partial solid waste collection services. In the first case, UNRWA sends its workers and trucks to collect waste from the AAs. In the second case, UNRWA agrees with dwellers to collect their solid waste from the main/external streets at specific times; dwellers carry their garbage bags to the containers provided by UNRWA, if available, along these streets.

In other AAs, dwellers are subscribed with private service providers from the local communities in exchange of monthly fees. The service providers collect solid waste from subscribed dwellers and transport them either manually or by trucks to nearby municipal or UNRWA collection points. Some AAs lack any method of solid waste collection. In such cases, dwellers discharge their wastes in nearby UNRWA or municipal containers or sometimes in the surrounding empty lands or rivers.

The methods used for solid waste collection in the AAs are summarized in figure 6 below in descending order from the most to the least occurring (note that in solid waste management, methods 1 and 2 are equally used in the AAs).

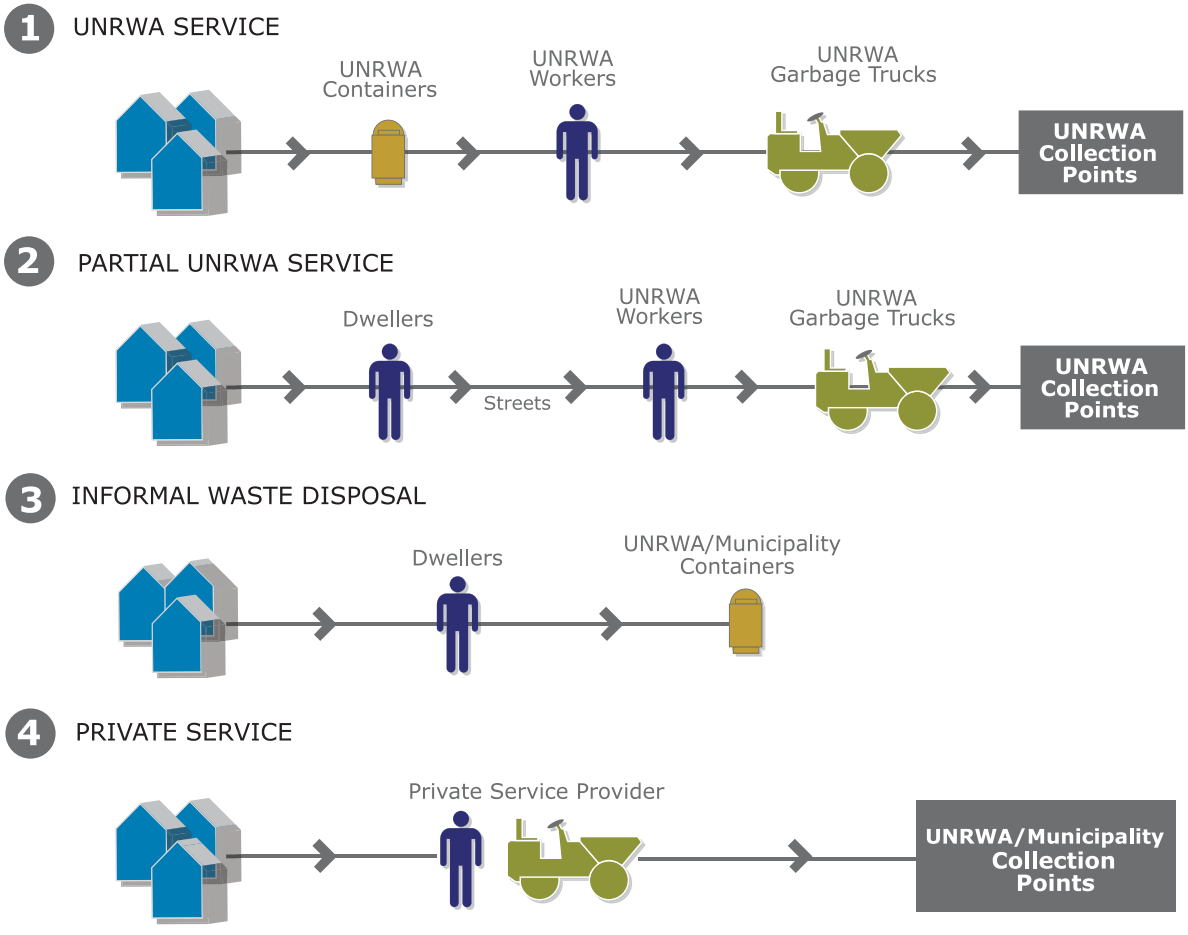


Figure 6: *Methods of solid waste collection in the AAs*

2.4 Electricity

Electricity is provided in the AAs through different stakeholders and through a variety of methods. In most AAs, the local committees under the wider management of the PCs in camps organize electricity distribution to households (5 to 15 amperes for each household) through a number of distribution boards and collaborate with dwellers to install household connections. Electricity is provided through transformers installed in the AAs and managed by the local committees or through the camp main networks and transformers managed by the PCs in camps. In such cases, dwellers do not pay subscription fees or monthly consumption bills to EDL.

In two AAs (NBC AA and Tallet el Mankoubin), EDL directly provides electricity mainly through installing regular meters or through the system of circuit breakers. In these two AAs, dwellers are committed to paying subscription fees and monthly consumption bills to EDL. In addition to these methods, some households in the AAs informally hook their houses to the surrounding networks, mainly in the adjacent camps.

Subscription to private electric services (generators) occurs in parallel to these methods in all AAs. The extent of the use of this method in each AA depends on the financial situation of households.

The methods used for accessing electricity in the AAs are summarized in figure 7 hereafter in descending order from the most to the least occurring.

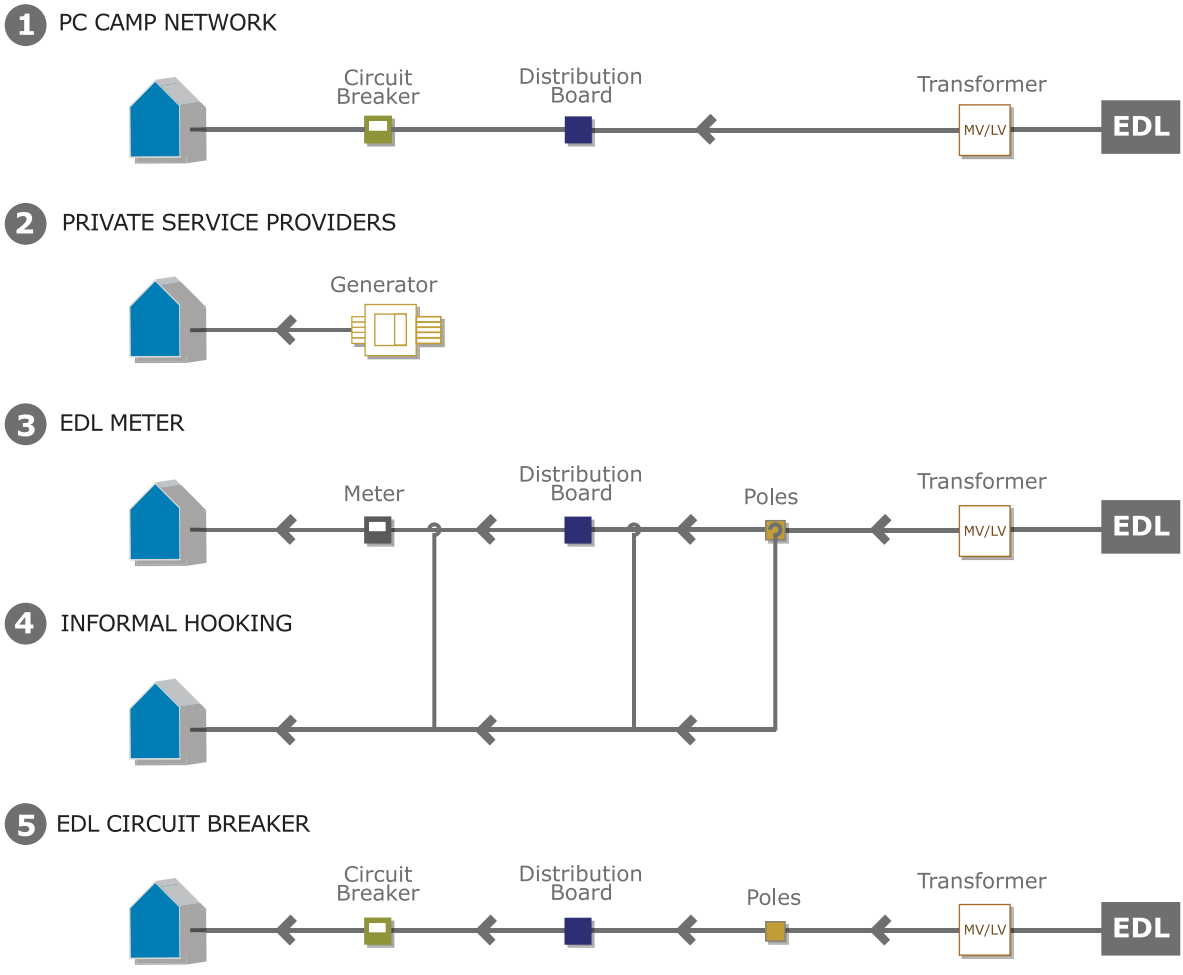


Figure 7: *Methods of access to electricity in the AAs*

2.5 Road Network

Road networks in the AAs generally consist of narrow streets and alleys that have evolved from spaces left between the houses. Most streets and alleys in the AAs are paved with concrete layers mainly executed as patch-work by dwellers. In some cases, roads are paved by the PCs/PLO or the NGOs implementing infrastructure projects in the AAs or through UNRWA Self-Help Programme. Under this programme, UNRWA reimburses dwellers for executing the works of paving the roads with concrete layers; UNRWA provides dwellers with the necessary plans and guidelines and carries on site inspections to guarantee the compliance of works with its plans and instructions. Few streets are asphalted by UNRWA, PCs/PLO or NGOs. Other roads are still neither paved nor asphalted.

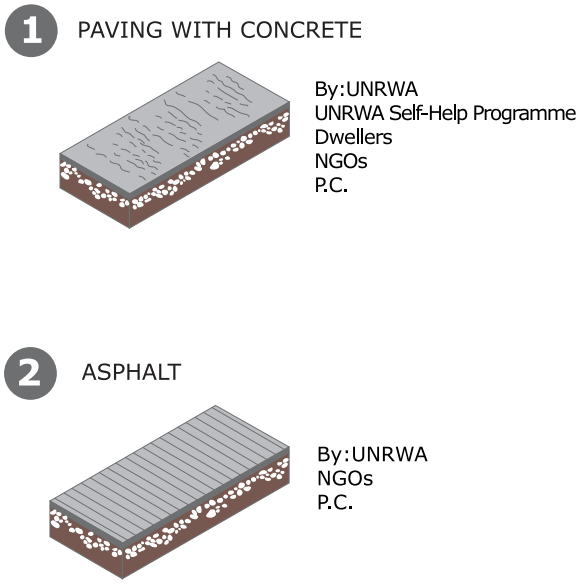


Figure 8: *Methods of paving road networks in the AAs*

2.6 Financial Aspects

This section attempts to document the financial fees paid by dwellers in the AAs for accessing and maintaining basic urban services.[28] It should be noted that households living in the AAs do not pay municipal tax and the municipalities generally do not provide BUS in these areas. The only fees paid to public service agencies are those paid to EDL and the Kadisha Concession by households living in NBC AA and Tallet el Mankoubin (Beddawi), respectively.

Households in most AAs pay monthly fees to the local funds managed by the local committees in their areas. These fees range from 2,000 to 3,000 LBP/household/month (1.3 to 2 USD) and are paid mainly for the maintenance and operation of the electricity and/or water networks. In some AAs, households pay additional monthly fees for solid waste collection private services; these fees are generally determined by 5,000 LBP/household/month (3.3 USD). Monthly fees paid by dwellers in the AAs to access and maintain BUS are summarized per each AA in table 5 hereafter.
In addition to these monthly fees, dwellers in the AAs pay individually or collectively for the implementation and repair of BUS such as sewage, water and road networks. However, the collection of these financial contributions is needs-driven, based on the required implementation of BUS and there are no regular amounts paid in such cases.

Basic urban services (informally) provided by UNRWA, mainly solid waste collection, are provided free of charge to households in the AAs, as presented in table 5 hereafter. This applies to other UNRWA interventions in the AAs such as the opening of congested sewage pipes and the paving of some roads under the Self-Help Programme. Households connected to the water sources located in the camps benefit from UNRWA's financial and technical responsibility of operating and maintaining these water stations, for free.

Households in the AAs also pay individually for one or more of these alternative services, which are offered by private providers[29]. These include:

- Purchasing potable water with an average cost of 45,000 LBP (30 USD) per month.
- Purchasing service water in the AAs that suffer from water shortage; dwellers buy ½ cistern-full of water for an average cost of 12,500 LBP (8.3 USD) once or twice a month.
- Subscribing at private electricity services (generators) at an average monthly fee of 60,000 LPB (40 USD) for 5 amperes.
- Hiring sewage tankers for emptying septic tanks with an average cost of 100,000 LBP (66.7 USD) per call. Dwellers share the cost in cases of collective septic tanks.
- Subscribing at private solid waste collection services at an average cost of 5,000 LBP (3.3 USD) per month per household.

Table 5 hereafter summarizes the monthly regular fees paid by households in the twelve AAs for each BUS sector.

28 Information in this section is collected through interviews with Popular Committees in camps, local committees in AAs and public officials in public service agencies.

29 The average costs of these services are based on interviews with representatives of the local committees and dwellers in the AAs and the PCs in camps.

TABLE 5: Monthly Regular Fees Paid by Households in the AAs for Accessing and Maintaining Basic Urban Services

CAMP	ADJACENT AREA	EXISTENCE OF LOCAL FUND	CONTRIBUTIONS TO LOCAL FUND LBP/Month/HH	BASIC URBAN SERVICES					
				WATER PROVISION	SEWERAGE	SOLID WASTE COLLECTION LBP/Month/HH	ELECTRICITY		ROADS
							Monthly bills paid to EDL	Local maintenance	
BEDDAWI	TALLET EL MANKOUBIN	NC local fund	2,000 - 3,000	From NC fund	No regular fees	No regular fees No service	Subscribed HHs pay to EDL	No regular fees (EDL task)	No regular fees
	MOUHAJARIN	NC local fund	2,000	Free UNRWA service	No regular fees	Free UNRWA full service	No bills paid	From NC fund	No regular fees
NBC	NBC AA	No local fund	No fees	Free UNRWA service*	Free UNRWA service*	Free UNRWA full service	Subscribed HHs pay to EDL	No regular fees (EDL task)	UNRWA*
MIEH MIEH	MIEH MIEH AA	No local fund (Camp PC fund used instead)	3,000	Free UNRWA service	Free UNRWA partial service	Free UNRWA full service	No bills paid	From Camp PC fund	UNRWA self-help programme
AIN EL HELWE	BARAKSAT	PC local fund (currently non-operational)	3,000 (Previously)	No regular fees	No regular fees	5,000 to private services	No bills paid	From PC local fund	No regular fees
	BUSTAN EL KODS & OUZO	SC local fund	3,000	From SC fund	No regular fees	Free UNRWA full service	No bills paid	From SC local fund	No regular fees
	BUSTAN ABOU JAMIL	No local fund (Camp SC fund used instead)	2,000 - 3,000	From Camp SC fund	No regular fees	No regular fees No service	No bills paid	From Camp SC fund	No regular fees
	FADLO WAKIM	SC fund of Sector 5 of camp	2,000	No regular fees	No regular fees	Free UNRWA partial service	No bills paid	From SC fund	No regular fees
	HAY EL SOHOUN	SC fund of Sector 2 of camp	3,000	From SC fund	No regular fees	Free UNRWA full service	No bills paid	From SC fund	No regular fees
	JABAL EL HALIB	PC local fund	2,000 - 3,000	No regular fees	No regular fees	a) Free UNRWA partial service b) 5,000 to private services	No bills paid	From PC local fund	No regular fees
	SEKKE	SC local fund	3,000	From SC fund	No regular fees	a) 3,000 to private services b) No regular fees; No service	No bills paid	From SC local fund	No regular fees
	TAWARI	PC local fund (irregular contributions)	2,000 - 3,000	No regular fees	No regular fees	Free UNRWA partial service	No bills paid	From PC local fund	No regular fees

* An exceptional temporary case due to UNRWA Emergency Programme in NBC AA after the NBC conflict

PC: Popular Committee
SC: Sector Committee
NC: Neighbourhood Committee

3. State of Basic Urban Services in the AAs

In general, basic urban services in the AAs were implemented informally by the local communities on a temporary basis and have not been properly maintained, rehabilitated or upgraded in most AAs since. The state of these services reflect the limited financial capacities of the local communities, including dwellers and local committees in the AAs and Popular Committees in the adjacent camps. Basic urban services in the AAs could be described as inadequate, unreliable and insufficient to respond to the needs of the increasing population. In addition, the lack of sustainability is a major aspect that characterizes BUS in the AAs and constitutes a major concern to the local communities living in these areas. This is due to the limited capacities of the popular and local committees and to the absence of official institutions that manage and supervise strategies for BUS provision in any of the service sectors in the AAs.

The state of basic urban services in the AAs is strongly correlated to the state of services in the surrounding areas, mainly in the adjacent camps. Infrastructure networks and services in the AAs are informally connected to those in the camps and the municipal areas, drastically impacting and affecting each others. However, no comprehensive plans or strategies take this fact into consideration. The implementation and improvement of BUS occurs in isolation in each of these neighboring areas i.e. the camps, the AAs, and the surrounding villages and towns.

3.1 Water Provision

Water provision in the AAs is generally characterized by shortage in quantity and quality and inadequate networks. Water provided from wells located in camps and managed by PCs or UNRWA is generally subjected to UNRWA quality control (laboratory tests and regular chlorination). However, the quality of water remains compromised by the state of networks and pipes, as discussed hereafter. In addition, water from these sources is being distributed to the networks in camps and AAs alternately, which result in insufficient water supply. On the other hand, wells located in the AAs under the management of the local committees are generally not subjected to quality control. In addition, water pumping is hindered by electricity regular cut-offs. In some cases, water is pumped directly from wells to the networks without being collected or stored in collective water tanks or towers. This reduces the opportunity of maximizing water supply from available sources and contributes to the shortage in water provision.

Water provision in the AAs also suffers from the inadequate state of networks. Pipes are generally under-dimensioned, old, corroded and damaged, which affects the quality and quantity of water. Even when dwellers in the AAs are supplied with water chlorinated by UNRWA, the damaged state of pipes causes water contamination through corrosion, exposure and mixing with sewage. Most of the damaged and corroded parts of the water networks are not properly replaced or repaired. In addition, water pipes are laid beside sewage lines or septic tanks without considering the minimum engineering requirements for pipe protection. Most water networks in the AAs need upgrading and rehabilitation in addition to securing other sources of water or maximizing supply from existing sources.

Basic methods of repairing water networks by replacing only the damaged parts, Jabal el Halib AA around Ain el Helwe Camp

3.2 Sewerage

Sewerage in the AAs is generally characterized by the use of inadequate methods and inappropriate discharge. Sewage networks that were informally connected by dwellers to the surrounding networks are generally inadequate, under-dimensioned and unmaintained, which causes continuous damages and flooding. This case is exacerbated by the fact that the surrounding sewage networks were not designed to correspond to the additional load from the AAs. Other private sewage networks discharge without proper disposal methods into surrounding areas or rivers, causing pollution and bad odors. Most sewage networks in the AAs are in need of rehabilitation and renewing.

Dwellers in other AAs rely on the use of septic tanks for the disposal of sewage and service water. These tanks are generally completely or partially exposed, which result in sewage over-flooding in the streets, especially in winter when rain water enters the septic tanks. Being dumped when full or irregularly emptied, these tanks become a source of public health hazards, especially when polluted water overflows to houses or infiltrates the ground.

3.3 Solid Waste Management

There are no comprehensive strategies implemented by public or private institutions for solid waste management in the AAs. Whether solid waste is collected and disposed by UNRWA, private service providers or dwellers themselves, waste is not regularly collected and streets are not swept. Most AAs lack containers for solid waste collection, which allows for accumulation of garbage on streets and between the houses. Some dwellers throw their garbage in the surrounding empty areas and rivers or resort to burning it. This results in compromised hygiene situations in the AAs and their surroundings and increases risks of pollution and diseases.

The lack of comprehensive and coordinated strategies for solid waste management in the AAs also affects the adjacent camps and the surrounding villages and towns. Not designed to cater for the additional number of dwellers in the AAs, solid waste in the camp and municipal collection points accumulates outside the containers on the streets.

Basic methods of repairing sewage networks, Baraksat AA around Ain el Helwe Camp

UNRWA collection points are located in some AAs, Ouzo AA around Ain el Helwe Camp

3.4 Electricity

Electricity networks in the AAs are characterized by shortage in supply, regular cut-offs and the lack of safety measures. Most networks were installed by the local communities using exposed cables without applying the minimum required safety standards. Informal hooking in some AAs exerts additional load on the networks and causes repetitive damages and cut-offs of the electric current, especially during winter when electricity consumption increases. Unorganized electricity connections also pose serious risks to public safety. Incidents of exposed cables falling to the streets or the corrugated iron roofs in AAs and harming, sometimes killing, dwellers are not uncommon.

Most electricity cables are old, exposed and unmaintained. In addition, repairs are implemented through replacing only the damaged parts of the cables. This results in reduced efficiency and conductivity of the electric current and increases life-threatening accidents. Because of the increased load, electric transformers used to supply electricity to the AAs become short in number and/or capacity. Most networks are in need of upgrading and renewing.

It should be mentioned that the organization of electricity supply and the renewal of old electricity networks by the local committees in the AAs have improved the state of this service and reduced problems and damages in the networks in the AAs and their surroundings.

3.5 Road Networks

Most roads in the AAs constitute narrow streets and alleys between the houses, which results in compromised lighting and ventilation conditions. Roads are generally damaged and in need of repair, rehabilitation and paving. There are no rain water drainage systems on the roads. Due to improper sewage networks, roads are flooded with sewage which mixes with rain water in winter.

There is no street lighting, sidewalks or safety measures implemented along the main streets. The state of roads in the AAs compromises vehicular and pedestrian access to houses, especially in cases of emergencies.

An example of unorganized electricity provision, Bustan el Kods AA around Ain el Helwe Camp

Roads in the AAs are in massive need of rehabilitation and paving, Baraksat AA around Ain el Helwe Camp

3.6 Priorities of Interventions in the AAs

Based on the findings of the research, a general pattern could be concluded pertaining to the local priorities of basic urban service interventions in the AAs. Local communities in the AAs generally prioritize the two sectors of sewerage and water as the most vital and necessary requirements for a better livelihood. A sound sewage system is given an urgent priority since inadequate sewage networks and disposal methods could contaminate water sources and networks. Following these two sectors, electricity has been identified as another significant field of intervention, especially in the AAs were the distribution of electricity consumption has not been organized by the local committees. These priorities are generally followed by the two sectors of solid waste collection and road networks. Interventions in road networks include not only the rehabilitation and paving of roads but also the implementation of storm water drainage systems.

It is worth noting however that the local priorities of current interventions in the different BUS sectors are not homogeneous across all AAs. This is mainly due to the fact that some AAs have been witnessing NGOs involvement specifically in WATSAN (water and sanitation) projects. The priorities of interventions in BUS sectors are summarized per each AA, in descending order from the most to the less urgent, in table 6 hereafter. These priorities reflect the needs and suggestions of the local communities in the AAs.

Tallet el Mankoubin around Beddawi Camp, North Lebanon

Table 6: Priorities of Intervention in the Sectors of Basic Urban Services in the Twelve AAs

CAMP	ADJACENT AREA	PRIORITIES OF INTERVENTIONS IN BUS SECTORS			
		PRIORITY NO. 1	PRIORITY NO. 2	PRIORITY NO. 3	PRIORITY NO. 4
BEDDAWI	TALLET EL MANKOUBIN	Replace septic tanks & establish sound sewage network	Upgrade/replace water network & establish new well	Pave roads	–
	MOUHAJARIN	Replace sewage network or connect to existing new UNICEF network	Rehabilitate and renew electric cables	Distribute covered containers for solid waste collection	–
NBC	NBC AA	Develop sustainable strategies for BUS provision after end of UNRWA Emergency Programme	Increase capacity of electricity network	Upgrade sewage network; install water drainage system along roads	–
MIEH MIEH	MIEH MIEH AA	Repair & pave main roads & establish retaining walls in Hay el Wadi	Upgrade sewage network	Install water drainage system along roads	Rehabilitate & increase the capacity of the electricity network
AIN EL HELWE	BARAKSAT	Implement new and sufficient electricity network	Complete rehabilitation & upgrade sewage network initiated by PU	Pave roads & implement storm drains	Develop sustainable & efficient strategy for solid waste management
	BUSTAN EL KODS & OUZO	Rehabilitate & upgrade sewage network*	Rehabilitate water network & build collective water tank*	Upgrade electricity network & install additional transformer	Pave roads & install storm drains
	BUSTAN ABOU JAMIL	Establish sound sewage network	Establish sound water network	Renew electricity network & install transformer	Find solution for current location of UNRWA solid waste collection point
	FADLO WAKIM	Establish sound sewage network; rehabilitate roads; install storm drains	Establish sound water network	Renew electricity network & install transformer	Distribute covered containers for solid waste collection
	HAY EL SOHOUN	Rehabilitate & upgrade sewage network	Rehabilitate & upgrade water network	Pave roads & install storm drains	Renew electricity network & install new transformer
	JABAL EL HALIB	Establish water network & develop sound strategy for water provision*	Implement sound sewage network*	Pave roads & install storm drains	Develop sustainable & efficient strategy for solid waste management
	SEKKE	Build collective water tank	Pave roads & implement storm drains	Provide additional electricity transformer	Connect remaining households to the sewage network upgraded by PU
	TAWARI	Renew water & sewage networks; develop sustainable management strategies	Implement new & sufficient electricity network; develop comprehensive management strategy	Pave roads & install storm drains	Develop sustainable & efficient strategy for solid waste management

*Priority expected to be addressed at the finalization of PU planned WATSAN projects; note that some of these projects have already started (refer to Part Two of the report).

Section V

Conclusions and Recommendations

This section represents the concluding section of the report; it aims at presenting a set of recommendations for improving dwellers' access to basic urban services in the AAs. The first part of this section presents key conclusions summarizing the main aspects that shape dwellers' access to BUS in the AAs. These aspects relate to the specific conditions that characterize the AAs but also to the wider national context in which these areas are found. To respond to these conclusions, the second part of this section suggests a set of recommendations that aim at improving dwellers' access to BUS in the AAs.

1. Key Conclusions

According to the findings of this research, inadequate access to basic urban services constitutes a major concern for dwellers in the AAs. Deprived from BUS provided by the state, UNRWA or any other institutions, dwellers in the AAs resort to a set of self-help initiatives as an alternative mechanism for accessing BUS. These self help initiatives comprise: 1) the direct implementation of basic urban services; 2) tapping into surrounding BUS and infrastructure; 3) forming local committees under the camp PC structures; 4) pooling of financial resources; and 5) employing relationships with other stakeholders. Methods that are feasible to dwellers in the AAs for implementing and repairing BUS are generally elementary and ad-hoc; they occur without consideration to environmental or protection standards. While in the absence of other options, these informal practices work to ensure dwellers' access to BUS, the services themselves are inadequate and unsustainable and characterized by huge gaps and shortfalls. In addition, infrastructure networks and BUS in the AAs are informally connected to those in the camps and surrounding residential areas in ad-hoc methods, drastically impacting and affecting each other.

Access to basic urban services in the AAs is shaped by a combination of aspects that pertain to the specific characteristics of the AAs as well as to the wider regional and national context. These aspects represent a set of challenges that should be addressed in any attempt to improve dwellers' access to BUS in the AAs; they could be classified according to the following six categories:

- The legality issues in the AAs;
- The political context involving the presence of Palestinian refugees in Lebanon;
- The socio-economic conditions of the local communities in the AAs;
- The governance and institutional framework of BUS provision in Lebanon;
- The financial aspects of accessing and sustaining BUS in the AAs; and
- The technical aspects related to the methods of implementation of BUS in the AAs and the availability of relevant information.

1.1 Legal Aspects

Informality of the AAs

Living in the informal Adjacent Areas of Palestinian Refugee Camps in Lebanon, dwellers are not entitled access to basic urban services provided by public agencies and municipalities or by UNRWA. In addition, there exists no regulatory or institutional framework adopted by the government that enables or facilitates the implementation or improvement of BUS in the AAs (such the case in all informal settlements in Lebanon). Deprived from access to BUS, dwellers in the AAs have no options but to rely on informal methods that are often inadequate and unsustainable. In addition, living in informal settlements, Paletinian refugees in the AAs have no formal circuits for voicing their needs or pressing for solutions.

EDL is the only public private agency that provides services in the AAs. However, in most AAs, EDL informally extends some services as 'favors' to prominent political figures. This contributes to the informality of BUS in the AAs and leads to the provision of compromised services that are not adequately maintained and that could be terminated without prior warning. The absence of an enabling regulatory framework for accessing BUS in the AAs also obstructs potential BUS interventions undertaken by private service providers and NGOs. Such interventions require complicated and long processes for obtaining official permits and individual permissions by private land owners in these areas.

Land Tenure

The absence of a public strategy to address the rights of original owners of occupied lands in some AAs or to compensate them properly constitutes a major challenge for improving access to basic urban services in these areas. Any intervention in this domain is usually associated with local concerns of making the accommodation of Palestinian refugees

Sekke AA around Ain Helwe Camp, South Lebanon

on others' properties 'permanent' or 'acceptable'. This has sometimes hindered the approval of concerned municipalities on infrastructure projects undertaken by NGOs in the AAs.

1.2 Political Aspects

Political Sensitivity

Improving the living conditions for Palestinian refugees is considered a politically sensitive topic in Lebanon. Such interventions could be interpreted in political discourse as a step towards the 'permanent resettlement' (*tawtin*) of Palestinian refugees in the country. This has complicated and stalled interventions in the domain of BUS in the AAs. Even when some municipalities suggested the inclusion of the AAs within its schemes or projects, this was hindered by the lack of consensus at higher political levels.

Security Measures around Camps and AAs

Besides constraints on public interventions due to informality, public officials are restricted from entering some AAs as part of the security measures applied by the Lebanese Army around some camps. While there are no security procedures targeting the AAs per se[30], some AAs were included within the checkpoints and fences installed around adjacent camps. Representatives of the local communities explain that the firm security procedures applied around AAs hinder BUS interventions by private providers and restrict the access of basic materials necessary for repairing or renewing infrastructure networks. In some cases, the installation of fences and the consequent segregation of the AAs from their surroundings have led to damaging and disconnecting some infrastructure networks, mainly water and sewage.

In addition, AAs are generally associated with perceptions applied to camps such as the absence of rule of law, insecurity and armed conflicts. These characteristics make the AAs, even those with unrestricted access, controversial places for public officials to visit.

1.3 Socio-Economic Aspects

Living Conditions of Palestinian Refugees in Lebanon

The living conditions of Palestinian refugees in Lebanon are shaped by the restrictions applied on their civil rights, which prevents them from owning properties and from working in many professions. While Palestinians in Lebanon are not officially classified as refugees entitled to special rights and services from the state, the law of reciprocity does not apply to them, depriving them of basic civil rights. These limitations have worsened the living conditions of refugees and increased their dependency on UNRWA.

Limited access to ownership and work have a direct impact on the ability of AA dwellers' to improve their access to basic urban services. The insecure access to tenure limits dwellers' capability to invest in improving their living conditions and environments, including access to BUS. Similarly, restrictions applied on their right to work result in high rates of unemployment and induced poverty, which also limits their capacity to invest in improving their access to BUS. As such, poverty in the AAs becomes both the cause and the effect of the inadequate access to BUS.

Living Environment in the AAs

In addition to informality and poverty; other characteristics of the AAs, such as high population density, haphazard construction and poor site conditions, negatively impact dwellers' access and maintenance of basic urban services. For example, overcrowding in the AAs exerts additional pressure on the already inadequate BUS, worsening their state. In addition, overcrowding maximizes health hazards caused by accumulated sewage, waste water and solid wastes and ad-hoc electricity connections. Poor site conditions in the AAs, such as haphazard constructions, inadequate shelters and roads, difficult site topography and physical isolation from the surrounding, further complicate the technical procedures for implementing and connecting BUS.

1.4 Governance/Institutional Aspects

Lack of Comprehensive Plans and Strategies

Similar to other informal settlements in Lebanon, AAs are excluded from local development plans and national strategies in the domain of basic urban services. These areas are not included in infrastructure projects that occur in the surrounding villages and towns. In addition, no comprehensive plans address problems of BUS in the AAs as part of their wider regional context or provide common solutions and suggestions. As a result, infrastructure projects are applied separately in each of these geographical entities: camps, AAs and surrounding villages and towns, without considering the existing links and mutual effects of infrastructure networks. According to interviewed mayors, this situation leads to the ad-hoc connections of infrastructure networks in camps and AAs to the municipal networks, which exerts additional pressure and causes shortfalls in the latter.

30 NBC AA currently constitutes an exception, for more information refer to Part Two of the report, Section II.

Fadlo Wakim AA around Ain Helwe Camp, South Lebanon

Lack of Communication and Coordination Mechanisms

Access and maintenance of basic urban services in the AAs are affected by the lack of communication and coordination between involved stakeholders. In the absence of overarching strategies or frameworks for interventions, these stakeholders operate individually. Interventions undertaken by stakeholders such as the PLO, UNRWA, public service agencies and local and international NGOs occur in the AAs often in an isolated and un-comprehensive manner, which compromises the efficiency of these interventions. Similarly, there exist no formal or informal channels for information exchange and dialogue between the local communities in the AAs and the local authorities. The lack of communication hinders potential interventions or cooperation. The only niche allowed for the local communities in the AAs to participate in decision-making and the implementation of infrastructure projects is that given to them by the implementing NGOs.

Limited Municipal Resources

Municipalities that accommodate the AAs under study generally suffer from lack of financial, technical and human resources. This currently prevents them from intervening in the AAs and poses a challenge towards any potential official mandate in the future. Interviewed mayors explain that the main challenge when the local communities in the AAs resort to them for providing help is related to the lack of resources, mainly financial resources. This is effectively due to the relatively limited municipal shares from the Independent Municipal Fund (IMF), which are proportional to the number of registered population only. It should be noted that the lack of municipal resources also impacts the state of BUS in the formal residential areas within the municipal boundaries and compromises municipal service delivery in general.

Limited PC Resources

Similarly, the lack of financial, technical and human resources of Popular Committees in adjacent camps have limited the capacity to improve basic urban services in the AAs. Limited financial resources have also led to reducing PCs allocations for employees hired to operate and maintain BUS in camps and AAs. In addition, PCs do not possess strong relationships or exposure to international donor agencies, which limits their opportunities to mobilize funds, engage in decision-making and prioritize required BUS projects in the AAs.

Project Based Approach for Improving BUS in AAs

National and international NGOs play the most significant role in improving dwellers' access to basic urban services in the AAs. In the absence of BUS provision by public and/or private agencies, interventions undertaken to improve BUS in the AAs generally occur as humanitarian initiatives individually designed and undertaken by NGOs. These initiatives, generally taking the form of infrastructure rehabilitation projects, mainly sewage and water (WATSAN) projects, occur on a project based approach. Due to the lack of an official overarching strategy put in place to facilitate and orchestrate different BUS interventions in the AAs, there exist no plans for organizing or prioritizing investments among different BUS sectors and different AAs. In addition, due to the limited financial and technical resources of the local committees in AAs, the efficiency and sustainability of the rehabilitated networks are challenged.

1.5 Financial Sustainability Aspects

The inadequate access to basic urban services in the AAs is shaped by the limited financial capacities at the local level, whether of the Popular Committees in the adjacent camps or the local committees and dwellers in the AAs. The sustainability of BUS in the AAs is challenged by the lack of employment allocations at the PC level. First, the number of workers employed to operate and maintain BUS in camps and AAs is not enough to respond to the overall needs. Second, due to their low monthly salaries (50,000 to 1,000,000 LBP (33 to 67 USD)), these workers contribute only a limited time for operating and maintaining BUS and more time to performing other jobs for living.

This research shows that dwellers in the AAs pay relatively high amounts of financial contributions, compared to their income, in order to implement and sustain BUS. The lack of BUS provision by any public and/or private agencies might be costing the local communities in the AAs higher amounts of money to access alternative, and not necessarily adequate, services.

1.6 Technical Aspects

Ad-hoc Methods of Implementing BUS

In the absence of any developed plans or schemes for guiding local self-help interventions, basic urban services in the AAs are implemented and maintained through ad-hoc methods. Access and maintenance of BUS in the AAs could be described as 'needs driven' (Verhagen and Ryan, 2008); dwellers have originally implemented BUS to respond to rapid relocations and urgent needs for services. These services are maintained and repaired, individually or collectively, by dwellers also using preliminary methods that do not comply with the minimum engineering or environmental health standards. Although international organizations have been implementing infrastructure projects in some AAs, these interventions remain periodic, individual and unattended.

Lack of Information and Data

Information and data on access to basic urban services in the AAs and the state of these services are generally scarce and incomplete. This is related to the lack of statistics in Lebanon in general and to the absence of data collection and documentation in informal settlements inhabited by Palestinian refugees in particular. Infrastructure and environmental conditions in the AAs have also not been documented by active local actors such as PCs in the camps or local committees in the AAs. The lack of information shared between different public and private stakeholders at the national and local levels limits any potentials for interventions or strategies that would correspond to the actual local needs.

Ouzo AA around Ain Helwe Camp, South Lebanon

2. Recommendations

In light of the key messages and findings emerging from this research, there is an urgent need to engage the government and other concerned national and local stakeholders in addressing the various development needs of the AAs in a more comprehensive and integrated manner. Adjacent Areas of Palestinian Refugee Camps cannot continue to be regarded as illegal and undesirable. In case the current situation continues, AAs might witness increased impoverishment and marginalization and further informal growth and development.

Alternatives to the neglect situation may include the formulation of national policies to *regularize* or *upgrade* these informal AAs. The UN-HABITAT Global Human Settlements Report - 2009 states that "regularization and upgrading of informally developed areas is preferable to neglect or demolition". *Regularization,* as defined by UN-HABITAT report, implies "recognition and provision of secure tenure", while *upgrading* generally "focuses on the provision or improvement of basic urban services", although it may also involve re-planning and re-development to ensure compliance with planning and building regulations (UN-HABITAT, 2009). The selection of the relevant policy scenario would basically depend on the government political will to engage in the development of these AAs.

Adopting the policy scenario of regularization represents the first recommended option in this research, since it presents a comprehensive approach for enhancing dwellers' living conditions in the AAs including access to adequate basic urban services. Such an approach would require a national consensus on separating the urgent and humanitarian need to improve living conditions of Palestinian refugees in Lebanon from the fear of their permanent resettlement (*tawtin)*. In this regard, improving dwellers' access to BUS in the AAs cannot occur in isolation of the following recommendations:

- Study and propose integrated legal solutions that provide secure access to tenure for dwellers in the AAs and address the rights of the original land owners whose properties were occupied.
- Enhance Palestinian refugees' access to civil rights, mainly the right of ownership and decent work.
- Design alternative ways for monitoring security situations in the AAs in collaboration with the local stakeholders as opposed to the existing geographic isolation of AAs from their surroundings.

However, in the current political context that limits Palestinian refugees' access to civil rights, *upgrading* could represent a more pragmatic and feasible option to improve dwellers' access to basic urban services in the AAs. This policy scenario could be adopted by the government to enhance the living conditions in the AAs, taking into consideration strategic partnerships, sound planning approaches and good governance systems. In this regard, a set of recommendations are developed that aim at improving access to BUS in the AAs as part of the wider regional and national context.

2.1 Developing an Enabling Institutional Framework

Developed by the government, an institutional framework would enable and facilitate and/or regularize the provision of basic urban services, through public or private agencies, in the AAs and the informal settlements in general. Such an overarching institutional framework would act to define and organize the roles and responsibilities of involved government authorities and state agencies, private service providers, NGOs and the local communities in the AAs.

2.2 Adopting More Comprehensive Approaches to BUS

Acknowledging that basic urban services and infrastructure networks in the AAs do not and cannot exist in isolation from those in the surrounding (camps and neighbouring villages and towns), the need arises to:

- Include BUS in AAs within the wider national and/or regional strategies for designing, providing and maintaining BUS and infrastructure networks.
- Include the AAs and the Lebanese surrounding areas in local development plans for improving BUS sectors. This would be considered a step towards improving the general relationships between neighbouring local communities and local authorities.
- Design more comprehensive infrastructure strategies and projects that take into consideration the existing connections between BUS in the AAs and the surrounding camps.

2.3 Promoting Dialogue and Communication

In order to promote more inclusive planning approaches to basic urban services in the AAs, it is necessary to establish dialogue and communication mechanisms between all involved stakeholders. This would require to:

Sekke AA around Ain Helwe Camp, South Lebanon

- Reinforce communication and coordination between governmental institutions, UNRWA, camp PCs and local communities in the AAs, concerning basic urban services; and include the topic of improving BUS in the AAs within coordination agreements between these stakeholders.
- Engage the local communities in the AAs in the decision-making process and the implementation of BUS and taking advantage of their local knowledge and skills.

2.4 Encouraging Partnerships

Partnerships are recommended on the national and local levels to include:

- Government: The involvement of government institutions is crucial for developing comprehensive strategies to guide the provision of basic urban services by public and/or private institutions in the AAs and to guarantee their sustainability through follow-up and maintenance measures.
- PCs in Camps and Local Committees in AAs: The role currently played by these committees in managing basic urban service should be capitalized on to enable them: 1) continue to perform their roles in an improved manner and engage in productive partnerships with other public and private stakeholders; 2) develop proper management schemes for the locally managed services in the AAs through better planning. This is critical for managing water sources in order to reduce water waste and maximize the use of available resources; 3) take part in the decision-making related to prioritizing, designing and implementing BUS interventions in the AAs; 4) influence and monitor the funding and execution of relevant projects; and 5) implement advocacy campaigns and raise the awareness of the local communities on environmental issues and preservation of public assets.
- Relevant Municipalities: Municipalities could play a key role in promoting the integration of BUS projects in AAs within the wider local development plans. This shall require the municipalities to play a facilitating role to enhance the participation of involved stakeholders in decision-making and implementation processes of BUS in the AAs.
- Humanitarian Organizations: Funded by donor agencies, development and humanitarian organizations have accomplished significant results in improving dwellers' access to BUS in the AAs. The need arises to capitalize on these achievements and draw lessons from these experiences and practices. Accordingly, it is recommended that donor agencies continue to provide financial support to these development and humanitarian organizations in order to resume their interventions in the AAs.

2.5 Building Local Capacities and Skills

Building capacities and skills is essential at the local level to target decision-makers as well as public and private employees:

- Improve the human and technical capacities of the local committees in the AAs in order to enable them better plan, organize and manage basic urban services.

- Improve the human and technical capacities of the local authorities involved in basic urban services in the AAs in order to better equip them to handle such new responsibilities.
- Set-up a training plan for local communities in the AAs, especially those employed to operate and maintain BUS, to guide the implementation of more sound methods for accessing BUS.

2.6 Planning for Financial Sustainability

With the aim of ensuring financial sustainability of basic urban services in the AAs, it is recommended to:

- Design comprehensive solutions and cost recovery plans to provide BUS that take into consideration the socio-economic conditions of the poor dwellers in the AAs and correspond to their limited financial capacities.
- Enhance the financial resources of the local committees and municipalities involved in BUS provision in the AAs.
- Allocate necessary financial resources to hire workers on full-time basis to operate and maintain BUS in the AAs.
- Document detailed financial contributions paid by dwellers in the AAs to access and maintain BUS. These findings would be shared with public and/or private service agencies to encourage them provide services in the AAs in exchange of affordable fees.

2.7 Enhancing Access to Information

In order to encourage inclusive approaches to basic urban service provision in the AAs, it is necessary to establish a database containing relevant studies and available information. This would represent a key tool for promoting dialogue and guiding participatory local planning approaches:

- Develop documented data and studies on access to BUS and the state of these services in the AAs and link it with relevant information in the camps and surrounding municipal areas.
- Share these data and studies with the involved public and private stakeholders and encourage dialogue and potential interventions.
- Create a platform for exchanging experiences and sharing successful case studies on local approaches to BUS provision in informal settlements and Palestinian gatherings.

Sekke AA around Ain Helwe Camp, South Lebanon

Part Two

Detailed Findings:

Access to Basic Urban Services per Each Adjacent Area

Section I

Adjacent Areas Surrounding Beddawi Camp

1- Tallet el Mankoubin
2- Mouhajarin

The two Adjacent Areas (AAs) of Tallet el Mankoubin and Mouhajarin are located directly along the perimeter of the Beddawi Refugee Camp in North Lebanon. The secondary road networks around the camp form the only separation between the AAs and the camp itself. Administratively, these areas are located within the boundaries of the Municipality of Beddawi (see figure 9). While Mouhajarin constitutes one neighborhood inhabited by a majority of Palestinian families, Tallet el Mankoubin belongs to the wider Mankoubin informal settlement, divided into two main areas. The first area is closer to Wadi Nahle informal settlement (see figure 10) and is inhabited mainly by Lebanese families. Another area (the AA) is located along the boundaries of Beddawi Camp and is inhabited mostly by Palestinian families. Local dwellers refer to the latter by "Tallet el Mankoubin" or the Hill of Mankoubin.

Relationship to Surrounding

Relationship to the Camp: Locally, the two AAs of Tallet el Mankoubin and Mouhajarin are connected to Beddawi Camp through the local organizational structure. The Popular Committee (PC) in Beddawi Camp considers these areas to be part of the camp's sectors. The AA of Mouhajarin constitutes part of sector D, while the AA of Tallet el Mankoubin is divided between sectors A and B of the camp. For each AA, the PC in the camp has encouraged the formation of a Neighborhood Committee (NC) that represents dwellers and voice their concerns to the PC. Each NC has one representative in a Sector Committee (SC) of the camp, who attends periodic meetings. This structure allows for the inclusion of the AAs in the distribution of financial and in-kind contributions donated to the PC as well.

The AAs are also related to Beddawi Camp through the array of educational and health services available in the camp. Dwellers in Tallet el Mankoubin and Mouhajarin use UNRWA schools and health care centers located in the camp. They also benefit from services provided by NGOs in the camp, since no NGOs are available in the AAs.

Relationship to Surrounding Villages/ Towns: Tallet el Mankoubin and Mouhajarin constitute a geographic extension of their neighboring residential areas that are inhabited by a majority of Lebanese families. These surrounding areas and the AAs are mutually affected by inadequate access to basic urban services, mainly sewerage and water provision. Sewage and rain water floods that occur in one area affect the others. Water sources in the camp that feed the AAs are also used by some Lebanese families from the surrounding. This case is particularly evident in the southern area of Beddawi that surrounds Mouhajarin (see figure 10).

Relationship with Other Stakeholders

For improving access to basic urban services in the AAs, the PC in the camp plays the role of mediator for voicing dwellers' concerns and needs. The PC in Beddawi Camp employs its relationships with other public and private stakeholders to facilitate needed interventions in the camp and the AAs. For financial support, the PC resorts mainly to the PLO and to the Palestinian factions active in Beddawi Camp. It also resorts to UN agencies such as UNRWA and UNICEF and occasionally to the Municipality of Beddawi for support in implementing required interventions.

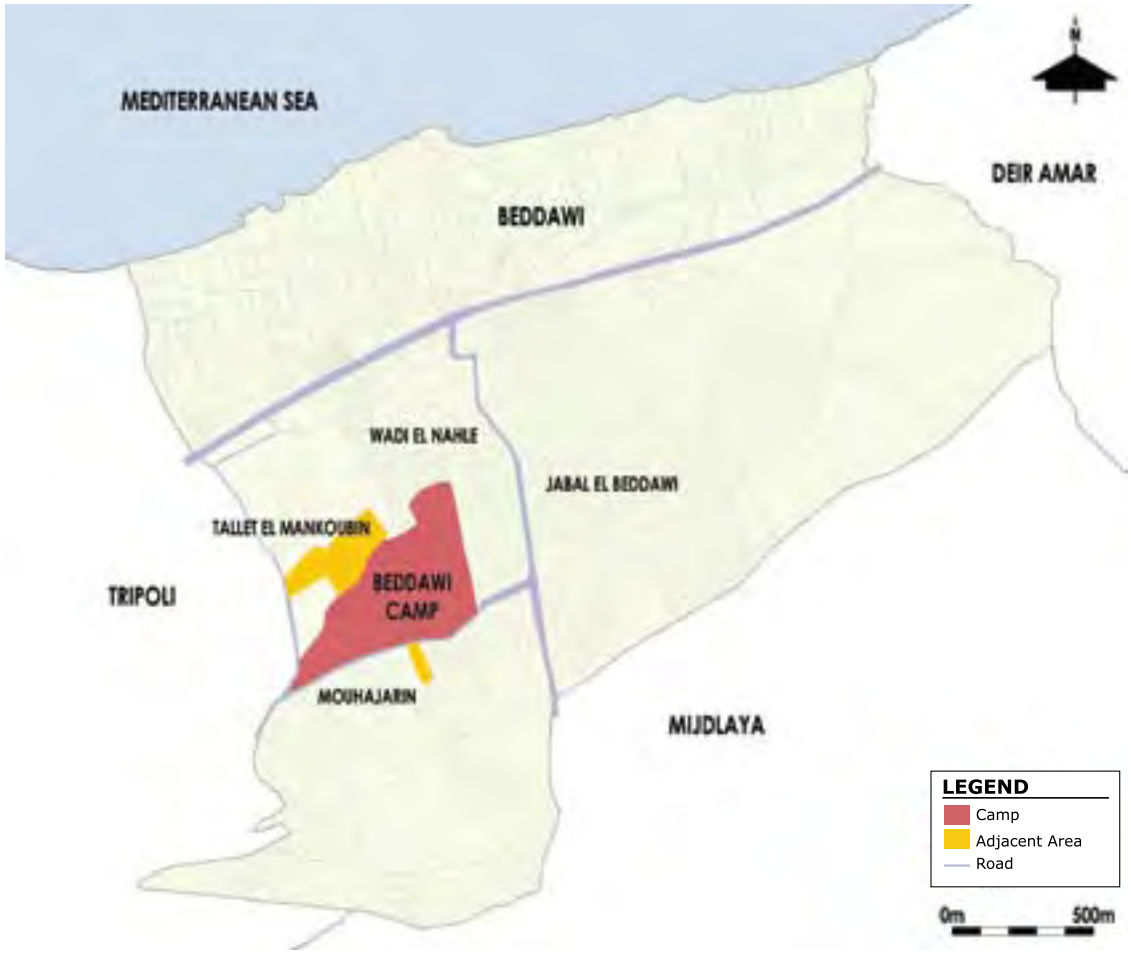


Figure 9: *Context and location of AAs surrounding Beddawi Camp, North Lebanon*

The PLO and Palestinian Political Factions: The PC in Beddawi Camp depends on the PLO for financial support, although the latter's financial resources have lately decreased. The PC also resorts to the different political factions active in the camp for financial resources, especially the bigger ones such as Fateh and Hamas. As with the other camps PCs, the PC in Beddawi Camp does not enjoy direct relationships with international donor agencies. Members of the PC in Beddawi Camp expressed the need to develop more networks with donor agencies, especially in the context of increased international interventions in the North after the NBC conflict.

UNRWA: Given UNRWA mandate in Palestinian refugee camps, the PC negotiates with UNRWA the needs and concerns related to basic urban services in the camp and the two AAs. As a result, UNRWA informally extends some BUS to Mouhajarin, especially after the relocation of displaced families from NBC in 2007.

It should be mentioned that the PC in Beddawi Camp has also developed a good relationship with UNICEF, which has historically provided services in the camp. The committee has also been introduced to the work of other INGOs mainly after the NBC conflict. For improving access to basic urban services in the AAs, the PC recently resorted to UNICEF and to Norwegian People's Aid (NPA). However, these agencies expressed their inability to implement infrastructure projects in Tallet el Mankoubin due to the illegal occupation of privately owned land.

The Municipality of Beddawi: The relationship of the local communities in the AAs to the Municipality of Beddawi suffers from lack of communication and coordination. To date, there are no official channels for information exchange between the municipality and the PC in Beddawi Camp or the local communities in the AAs. For example, the PC was only made aware of a major water and sewage project in Beddawi, funded by the Kuwait Fund for Arab Economic Development (KFAED), informally. The camp was not included in the project, though advocated by the PC and the Mayor, since infrastructure networks in Palestinian refugee camps were considered by other involved stakeholders as the responsibility of UNRWA. The municipality perceives the AAs to be an extension of Beddawi Camp and assumes that all Palestinian refugees living in the AAs are serviced by UNRWA. Information about the state of BUS in Tallet el Mankoubin and Mouhajarin is unavailable in the municipality.

1. Beddawi Profile

Area: 5.534km²
Population (excluding camp and AAs): 45,000 total dwellers; 13,365 registered population
Year of Establishment of Municipality: 1979

Geographic Location

Beddawi is a town located in the Qadaa (District) of Minieh – Denneyeh, 5km north of Tripoli in North Lebanon. It extends over an area of 5.534km². It is bounded by Deir Amar from the east, Tripoli from the west, Mejdlaya from the south and the Mediterranean Sea from the north (see figure 9).

Demography

The total number of registered population in Beddawi is 13,365 (Jahjah, 2005). However, a larger mix of Lebanese and Palestinian residents live within the municipal boundaries of Beddawi, in addition to those living in the camp. This number is currently estimated by the municipality to be around 45,000. According to the Mayor of Beddawi, the Lebanese residents add up to around 15,000. In addition to the two areas of Mouhajarin and Mankoubin, Beddawi includes the informal settlement of Wadi Nahle inhabited by a majority of Lebanese families.

It should be noted that the Palestinian population living in Beddawi is not restricted to the families living in the camp and its AAs; they are also distributed along the formal residential areas of the town. These dwellers are generally serviced by the municipality and are committed to paying municipal taxes.

Local Authority

The Municipality of Beddawi was established in 1979 and is a member of al Fayhaa Union of Municipalities.

Its municipal council includes 15 members, 12 of whom are currently active. 12 Committees are established in the municipality: health, education, procurement, tender, receipt, culture and media, engineering, public relations, sports, environmental, treasury audit and works.

The Municipality of Beddawi provides basic urban services in the formal residential areas of the town and extends some services to the informal settlement of Wadi Nahle and the Lebanese community in Mankoubin. BUS provided in the informal settlements include some urgent repairs in the sewage network and the collection of solid waste along the main roads of the settlements.

To carry out its services, the municipality hires a total of 25 employees, 19 of whom are workers and the rest are administrative staff. The municipality owns the following machineries: two pick-up trucks for solid waste collection and general works, one dumper for solid waste collection, one water cistern, one compressor and three mini vans.

For financial resources, the Municipality of Beddawi depends on its share from the government's Independent Municipal Fund (IMF) and on direct tax collection. According to the Mayor of Beddawi, the lack of financial resources constitutes one aspect that adversely impacts municipal service delivery. In addition, relevant tasks undertaken by the municipality are usually distributed among the few municipal members who are often available and active. The work of the municipality is sometimes compromised by the inability of the municipal council to convene on many occasions, as explained by the Mayor.

Basic Urban Services in Beddawi

Infrastructure networks in Beddawi, mainly water and sewage networks, are generally in need of rehabilitation. The state of basic urban services in each sector could be described as follows:

Water Provision: Beddawi in general lacks a public network for potable water. With the exception of the public network installed by the Tripoli Water Authority along the international road in Beddawi, residents in the town generally depend on private wells. According to the Mayor and other local stakeholders interviewed, these wells were contaminated by a fuel leak that occurred as a result of the explosion of fuel tanks in Beddawi during the civil war in 1983. The risk of contamination of water in Beddawi, according to interviewed residents, was increased by the storage of oil spill extracted from the sea by the government after the Israeli 2006 war.

Sewerage: An old incomplete sewage network exists in the town that is in need of rehabilitation and renewal. The network currently discharges in the sea without any measures for proper sewage treatment. A plan for upgrading the sewage network and implementing sewage treatment in Beddawi is currently under study by the government.

Solid Waste Management: The collection and disposal of solid waste is managed by the private company Lavajet commissioned by al Fayhaa Union of Municipalities. Fees for operating this service are deducted from the shares of municipalities in the Union. Waste is finally disposed in Tripoli Dump.

Electricity: An electricity network that is in good condition is installed by the Kadisha Concession[1]. However, residents complain from a high voltage (HV) network that passes above the residential area in Beddawi. Residents believe this HV network to cause serious health effects; while they have taken a number of protests to remove this HV network, the problem has not yet been resolved. Instead, electricity has been provided 24 hours a day to all residents in Beddawi.

Road Networks: A well maintained asphalted road network covers most of Beddawi. Roads are extended to the informal settlements of Wadi Nahle and Mankoubin, where a majority of Lebanese families live.

Relevant Projects

A project for the rehabilitation and completion of the sewage network in Beddawi is currently under study by the Council for Development and Reconstruction (CDR). The project is funded through a donation by the Kuwait Fund for Arab Economic Development (KFAED); with a total cost of 2 million USD. The project includes the implementation of a new main collector sewage pipe in Beddawi, which will also collect sewage discharge from Beddawi Camp, to a new sewage treatment plant in Tripoli.

KFAED will also fund a project for the installation of a water network in Beddawi with a total cost of 4 million USD. Works in the projects are proposed to start in 2010. According to the Mayor, the water network will cover all areas in Beddawi, including the informal settlements and the AAs. It was agreed among the Municipality, KFAED and CDR that two main connections to the water network will be located at the two entrances of Beddawi Camp for potential future projects implemented by UNRWA.

1 Kadisha Concession is a private-owned thermal and hydro power producer and distributor of electricity to about 100,000 customers in North Lebanon. Currently, EDL is the major shareholder in the Kadisha Concession.

2. Beddawi Camp Profile

Location: Beddawi, North Lebanon
Year of Establishment: 1955
Estimated Population: 16,591

Access to the Camp

Access to the camp is unrestricted for dwellers of the camp as well as the surrounding areas. Unlike the situation in Nahr el Bared Camp, the Lebanese Army Forces (LAF) did not establish any checkpoints on the entrances to Beddawi Camp. One checkpoint established by the PLO exists today at the main eastern entrance to the camp (see figure 10).

Local Authority

At the local level, a Popular Committee (PC) for Beddawi Camp was established in 1978 representing the semi-official Palestinian authority in the camp. The PC divides the camp into four sectors A, B, C and D, including the two AAs of Tallet el Mouhajarin and Mankoubin. Under the PC, four Sector Committees (SCs) are therefore operational and represented by the Head of each SC.

UNRWA Services

As per its mandate, UNRWA represents the main service provider in Beddawi Camp. UNRWA manages the following basic urban services in the camp: sewerage, water provision, solid waste collection and disposal and road networks. It also provides educational and health services through six elementary/preparatory schools, one secondary school and one health center, all located in the camp. UNRWA also operates a Social Safety Net Programme that benefits 4,286 individuals and a Disability Programme that provides support for persons and students with disabilities.

Active NGOs

A number of local NGOs are active in Beddawi Camp, which include among others Al-Najdah, Beit Atfal al Soumoud, Ghassan Kanafani Cultural Foundation, Lina Nabulsi National Association and the Palestinian Red Crescent Society. These NGOs provide services that include sponsorship programmes for orphans, vocational trainings, medical services and hospitalization and kindergarten facilities.

Basic Urban Services in Beddawi Camp

The management and state of basic urban services in Beddawi Camp are as follows:

Water Provision: Dwellers depend on five wells; one established by UNRWA, two by UNICEF and two by the PC through financial contributions from dwellers. The PC was responsible for managing water stations (wells, pumps and generators) and repairing the water network through collective contributions from dwellers. However, during the past decade and due to the lack of financial resources, the PC has delegated the management of water to UNRWA. It is worth mentioning that during the first years of their establishment, water stations in the camps were managed by UNICEF with the PC providing fuel for the pumping generators. For controlling the quality of water, UNRWA carries out regular chlorination of wells. Water provision in the camp is affected by the drop of water level in Beddawi. According to UNRWA Camp Services Officer (CSO) in Beddawi Camp, the water network is in need of rehabilitation and upgrading.

Sewerage: All houses are connected to a sewage network managed and operated by UNRWA; this network ultimately connects to the municipal network of Beddawi at Wadi Nahle. The network suffers mainly from over-pressure and flooding and is in need of rehabilitation and upgrading.

Solid Waste Management: This service is provided by UNRWA in all camps; UNRWA employs one worker per each 1,000 inhabitants, which complies with the relevant international standard. However, according to representatives of the local community and interviewed CSOs in camps, this standard does not suit the intricate urban fabric and road layout in the refugee camps and the service is insufficient. It should be noted that this comment apply to UNRWA solid waste management in the other camps.

Electricity: As in all camps, electricity in Beddawi Camp is locally managed by the PC. Electricity is provided by the Kadisha Concession through coordination between the company and the PC. After obtaining an electrical plan from Kadisha Concession, the PC built a total

number of nine electricity stations distributed along the boundaries of the camp. The company installed the main transformers and the high voltage network. As in the other camps in Lebanon, dwellers in Beddawi Camp do not pay subscription fees or monthly consumption bills to the company. For repairs to the electricity network, the PC calls the company or conducts repairs through financial contributions from dwellers and the PLO. As the case in Beddawi, electricity is provided in the camp 24 hours a day.

Road Networks: UNRWA is generally responsible for paving and asphalting roads in the camps. Some INGOs that fund infrastructure projects also take part in paving some roads. Camp roads vary from main streets to narrow alleys, sometimes covered with cement or unpaved. The state of roads in the camps varies with most streets and alleys being in need of rehabilitation and repairs.

Basic urban services in Beddawi Camp have been indirectly affected by the recent NBC conflict with the relocation of many families displaced from NBC to Beddawi Camp. The sudden increase in population exerted additional pressure on the already insufficient services and infrastructure of the camp. Problems related to the over-flooding of sewage networks have exacerbated and the number of workers responsible for solid waste collection has became insufficient to collect generated wastes. The increase in population after the NBC conflict also created pressure on the educational and health services provided by UNRWA in the camp. In addition, over-demand for residential and commercial units in the camp have led to inflated rent prices. UNRWA CSO has explained that although the camp has been economically and socially affected by the NBC conflict, UNRWA budget did not allow for including Beddawi Camp in its Emergency Programme designed for recovery of NBC dwellers after the 2007 conflict.

A general view from Baddawi Camp (Source Fadi Tayyar)

3. The AAs: Profiling and Access to BUS

This section presents the AA profiles and the detailed findings concerning dwellers' access to BUS in the following AAs surrounding Beddawi Camp:

1. Tallet el Mankoubin 2. Mouhajarin

Figure 10: *The two AAs surrounding Beddawi Camp, North Lebanon*

Tallet el Mankoubin

Adjacent Area Profile

Geographic Location

Tallet el Mankoubin represents the area of the informal settlement of Mankoubin that is located on the western outskirts of Beddawi Camp. It is surrounded by the camp from the east, Wadi Nahle informal settlement from the north, Mankoubin informal settlement from the west and Beddawi from the south (see figure 10). The informal settlement of Mankoubin also includes approximately 300 Lebanese families living in a separate area. Most of these families were displaced from Tripoli by the flood of *Abou Ali River* in 1955.

Demography

Tallet el Mankoubin is inhabited by a majority of Palestinian families and few Lebanese families. According to the report produced by PU & NRC (2009), the total number of Palestinian households is 108 and the total population is 580, most of them are registered with UNRWA and the Lebanese authorities. However, the number of households is said to be 162 (around 859 dwellers)[2] as stated by the Neighborhood Committee in Tallet el Mankoubin.

2 To estimate the total number of dwellers from the household numbers given by the local communities in AAs, an average household size of 5.3 was applied throughout this study, as per Fafo (2005) findings.

History and Growth

Tallet el Mankoubin was created in 1982 with the displacement of Palestinian families from other camps mainly in South Lebanon during the Israeli occupation. Some families have also moved in from the Beddawi Camp and NBC in the North. The neighborhood continued to grow during the period of the civil war in Lebanon.

Land Ownership

Tallet el Mankoubin is located largely on a single piece of private land that is the property of a Lebanese owner. A law suit undertaken by the land owner has been in court since 1996. A settlement has been negotiated by the PC in Beddawi Camp to reduce the amount of compensation requested by the owner from dwellers. An agreement has not been reached since the two parties could not agree on a compensation price in exchange of the land.

Living Environment

Tallet el Mankoubin consists of single-story and some two-story units distributed along an organic network of roads. Walls are built with concrete and almost half of the roofs are made of corrugated iron (zinco). According to the PU/NRC shelter assessment, some walls are structurally unsound or infiltrated by water and the hygiene inside some houses is poor (PU & NRC, 2009). Roads in this area consist of unpaved narrow paths and alleys. Field observation revealed the poor hygiene situation the roads.

The main entrance to Tallet el Mankoubin

A general view from the AA

Local Governance of Basic Urban Services

Local Organizational Structure

The Neighborhood Committee (NC) in Tallet el Mankoubin was formed in coordination with the camp PC since the creation of the neighborhood. Two members represent this committee in each of the Sector Committees (SCs) of sectors A and B of the camp. The NC includes 10 to 12 members, who are chosen through consensus among dwellers. It should be noted that the NC includes two Lebanese dwellers who live in Tallet el Mankoubin.

Dwellers informally discuss any problems or needs with the members of the NC. The latter generally holds meetings every Friday to discuss important issues and communicates these to the relevant SCs, either through informal conversation or structured meetings. The two SCs of sectors A and B later take these issues to the PC in their periodic bi-weekly meetings. Sometimes issues are directly discussed through informal conversations between dwellers and members in the SCs or the PC in Beddawi Camp.

Financial Resources

The Neighborhood Committee has initiated a neighborhood fund fed through monthly contributions collected by the NC from dwellers. Each household pays a monthly amount of 2,000 to 3,000 LBP (1.3 to 2 USD). Money from this fund is used for small scale repairs and renewals mainly in the water network in Tallet el Mankoubin. It is common for the NC to exempt the poorest dwellers from paying. Fees for operating the water network and fuel fees for operating the water generator are covered by the PC and UNRWA respectively, since the same well provides water to parts of the camp. This alleviates some costs for dwellers in the neighborhood.

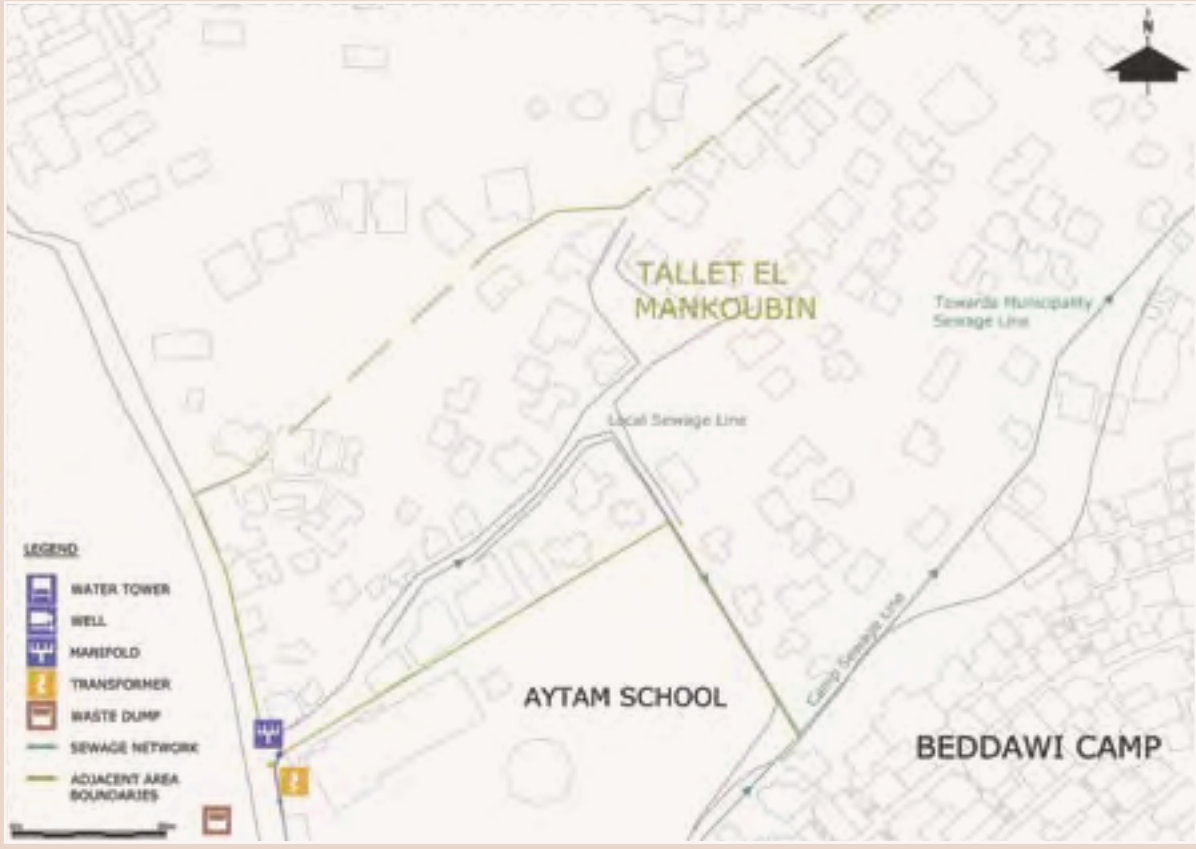


Figure 11: *Location and key BUS in Tallet el Mankoubin AA surrounding Beddawi Camp*

Basic Urban Services

Water Provision

Water Source

Water is distributed to dwellers in Tallet el Mankoubin from a well that was established by UNICEF near the western entrance of Beddawi Camp. UNICEF connected this well to a main manifold at the entrance of the AA (see figure 11) and dwellers took charge of connecting their houses to this manifold. This well provides water for Sector A of the camp as well as to Tallet el Mankoubin.

In addition, around 30 households were subscribed to buying water from a private well in Mankoubin, owned by a Lebanese dweller who sold water for 10,000 LBP (6.7 USD) per month. This water was not potable and was used only for services. Due to the increase of the Lebanese population in Mankoubin and the increased request for water, the owner of the well stopped distributing water to Tallet el Mankoubin.

Another Lebanese family uses a private well for services and provides water for a few relatives and neighbors in the AA. This well, according to interviewed dwellers, was established as a contribution from one politician to the Mankoubin area; however it is being used as a private water source.

Network Implementation

The water network in Tallet el Mankoubin was implemented about 10 years ago as a complementary work between UNICEF and dwellers in the AA. Due to the shortage of water provision in sector A of the camp, the PC has resorted to UNICEF in order to dig an additional well in the camp. The PC, through discussions with the NC in Tallet el Mankoubin, requested UNICEF to include the AA in water provision to Sector A. In response to this action, UNICEF conducted a field observation and acknowledged the need for water in Sector A as well as in Tallet el Mankoubin.

UNICEF established the well and a collective 40m^3 water tank and purchased a pump to drive water from the well to the tank. Premiere Urgence (PU) has also contributed through purchasing the electricity generator for operating the pump. The informality of Tallet el Mankoubin prevented UNICEF from establishing a network on that land. As an alternative mechanism, UNICEF installed plastic connections from the water collection tank to one main manifold at the entrance of the AA.

The local community continued the work to install above-ground connections from this manifold to their houses. Dwellers purchased, at their own expenses, 0.5" plastic pipes and hooked them from the manifold to their houses, using their technical skills. Dwellers installed private pumps to drive water from the network upwards to 1m^3 private tanks installed on the roofs. Some Lebanese families who live in the closer areas of Mankoubin have also connected their houses to this well.

Operation

The management of the water station (well, pump and generator) is currently carried out by the Beddawi PC. The Committee has appointed a member of the NC in Tallet el Mankoubin to operate the water service. This well feeds three main networks, one in sector A of the camp and two in Tallet el Mankoubin. Water is provided alternately to two of the three networks per day. UNRWA provides the monthly cost of fuel for the operation of the generator.

It should be mentioned here that the PC in Beddawi Camp has been delegating the management of water service to UNRWA. However, the well that feeds the area of Tallet el Mankoubin has not been included under this procedure yet. According to UNRWA CSO, UNRWA and the PC did not reach an agreement over the handing-over of the electricity generator that operates the pump.

One collective manifold installed by UNICEF at the entrance of Tallet el Mankoubin provides water to all houses in the AA

Repairs

For repairs in the water network that connects the collective tank to the main manifold, the NC uses money from the neighborhood fund. The money is used to purchase any required materials and to pay local workers to carry out repair works. In cases of damages to the secondary network, i.e. from the main manifold to the houses, dwellers pay individually and manage necessary repairs.

Quantity of Water

Due to the increase in population in Tallet el Mankoubin during the last decade; most households suffer from water shortage. Water from each network is available for only three to four hours per day. This creates negotiations among dwellers on whose 'turn' it is to fill his/her tank and at which time of the day. Some dwellers have to wait for their turn until late at night to fill their tanks, which are usually not full.

The shortage in water forces dwellers in Tallet el Mankoubin to buy water from private retailers for drinking and service, once or twice a month. Dwellers pay around 25,000 LBP (16.7 USD) for the cost of one cistern full of water (2m³ capacity). Since dwellers use 1m³ individual water tanks, sometimes two or more households share the expenses of one water cistern.

Quality of Water

Water in Tallet el Mankoubin is used for drinking, cooking and services. According to the water analysis test carried by PU/NRC (2009) for water in Tallet el Mankoubin, water used from UNICEF well did not show any contamination. UNRWA carries monthly water tests through testing samples of water from houses in the camp and uses disinfectant in the well. However, the quality of water is compromised by the state of the networks, as discussed below. Due to the calcareous nature of the ground, dwellers complain of the taste of water.

Problems

Water provision in Tallet el Mankoubin suffers from problems that are mainly related to shortage in water supply and inadequate state of networks. The problems could be summarized by the following:

- Sub-standard state of networks due to the use of above-ground plastic pipes, which compromises the quality of water. The damaged and ruptured state of the plastic pipes allows for the mixing of water with sewage and flooded rain water. Similarly, due to continuous damages and repairs, the main line of the water network became partially covered, with some parts exposed above-ground.

Water reaches houses through above-ground plastic networks installed by dwellers in Tallet el Mankoubin

- Reduced water supply since all houses in the AA are connected to one main manifold located at the entrance to the AA, which is up to 400m away from some houses. No smaller intermediate collective manifolds are distributed in the AA for smaller groups of houses.
- Insufficient quality of water since water from the same well is used to supply three different networks.
- Additional pressure on the water networks due to the increase in population over the last decade.
- Interrupted and delayed pumping from the well to the main water tank due to frequent electricity cut offs. Water distributed to houses in two hours may take up to six hours to be pumped and collected in the tank. This might result in the deprivation of one network from water for two or more days. The well is also affected by the decreased level of underground water in Beddawi.

Needs

Representatives of the local community in Tallet el Mankoubin identified the need for replacing or renewing the existing network and distributing secondary collective manifolds along the AA. Securing another source of water in order to provide to all households in the AA was also required.

In an attempt to seek a solution, the NC in Tallet el Mankoubin drafted a formal letter signed by dwellers to UNRWA and asked for the latter's intervention. Due to reasons related to informality of the AA and UNRWA declared mandate, the issue was not followed through.

Sewerage

Method and Implementation

Dwellers have no access to a sewage network in Tallet el Mankoubin. As an alternative mechanism, they use individual or collective septic tanks that work without drainage system.

These self-help initiatives have taken place since the formation of the AA without planning or guidance by any institutions. Dwellers dug the septic tanks and connected their houses to these pits by above and under-ground pipes. The expenses were paid by dwellers, individually in case of individual household tanks or collectively through pooling money from two to five households in case of collective tanks.

Around ten households who live at the boundaries of Beddawi Camp have individually and informally connected their houses to the camp sewage network, through purchasing and hooking 4" plastic pipes. It should be noted that these pipes are installed above ground and because of their undersized diameter and ad-hoc method of connection; they often clog and flood into the camp.

Operation and Maintenance

When the septic tanks are full, dwellers resort to privately operated cisterns to empty the tanks, twice or three times a year. Dwellers pay a cost that ranges from 75,000 to 150,000 LBP (50 to 100 USD) to empty the septic tanks. In cases of collective septic tanks used by two to five households, dwellers collect money from each other to pay for the service.

Repairs

In case of damages to the septic tanks, dwellers take the financial and technical responsibility of carrying repair works.

Problems

The main problems pertaining to the sewerage sector in Tallet el Mankoubin could be summarized by the following:

- Hygiene and health problems due to the use of the partially exposed septic tanks without proper discharge.
- Flooding of sewage from the partially exposed septic tanks, especially in winter when rain water enters the tanks and mixes with sewage.
- Leakage of sewage due to blocked septic tanks or broken pipes. This, in addition to the inadequate state of water networks, increases the risk of water pollution through mixing with sewage.

Needs

Representatives of the local community identified the urgent need to install a developed sewage network that connects to all houses in the AA. Dwellers discussed a plan to install a main sewage line along the main street in the AA to be connected to the camp sewage network. The NC in Tallet el Mankoubin has met with the SC in Beddawi Camp to discuss the feasibility of implementing the project. However, the cost of installing a main sewage line was unaffordable to dwellers in the AAs.

Sewage floods on the streets due to the lack of a sewage network in Tallet el Mankoubin

Solid Waste Management

Applied Method

There is no solid waste collection service in Tallet el Mankoubin. This fact is reflected on the streets of the neighborhood, where wastes and garbage bags are scattered and piled between the houses. Dwellers carry their garbage bags to a Lavajet container placed outside the AA. This container is allocated for "Al Aytam School" and located towards the western entrance of Tallet el Mankoubin (see figure 11). Dwellers who live along the boundaries of the camp throw their garbage bags in the containers provided by UNRWA in the camp.

Problems

The main problem in Tallet el Mankoubin is the absence of a solid waste management service, which impacts both the AA and the surrounding areas:

- The lack of a sound developed strategy for solid waste management in Tallet el Mankoubin results in the accumulation of solid waste in the streets or the disposal of garbage bags in the nearby areas.
- This also impacts solid waste management in the surrounding residential areas and the camp, as the number of available containers is not designed to collect the additional waste from the AA. This fact results in the piling of solid waste by the containers.

Needs

According to the local community, there is a need to place containers for solid waste disposal in the neighborhood and more importantly to locate an institution that is willing to commit to emptying and transporting these wastes on a daily basis.

Electricity

Source

Electricity is provided to Tallet el Mankoubin by the Kadisha Concession through two stations installed at the boundaries of Beddawi Camp (Al Maslakh and the Orphanage School Stations). The capacity of each transformer is 250 KVA. The company established the network and installed meters in the houses in Tallet el Mankoubin around six years ago. The cables installed were shielded with a plastic cover to prevent illegal hooking to the network. Before this network, the Kadisha Concession used to provide some households with circuit breakers in exchange of 32,000 LBP (21.3 USD) monthly for 10 Amp. Some of these circuit breakers still exist in few houses in Tallet el Mankoubin.

The formal connection of the electricity network has improved the state of electricity in the camp and the AA. Before, many households used to hook to the camp network through tapping at the electricity poles along the camp boundaries. The overload on the network used to cause frequent cut-offs and damages to the electricity stations in the camp.

Network Implementation

The electricity network was connected to houses in Tallet el Mankoubin as a result of a series of actions taken by the PC in Beddawi Camp. The NC in Tallet el Mankoubin has discussed the need for a sound and safe electricity network with the PC, which in turn resorted to the Municipality of Beddawi and some deputies to install a network in the AA. The PC argued that illegal

One transformer installed by EDL at the entrance to Tallet el Mankoubin provides electricity to the AA

hooking undertaken by dwellers in Tallet el Mankoubin to the camp network was causing serious damages to the stations and regular cut-offs.

The Kadisha Concession and EDL agreed on installing meters in the area on the basis that a future settlement between the owner of the land and dwellers might take place. The PC also negotiated decreasing the cost of meters in response to the financial situation of dwellers, which was reduced by EDL and Kadisha Concession by half (180,000 LBP or 120 USD). According to the PC, the presence of some Lebanese voters in the camp have strengthened its position in the negotiations.

Operation and Cost Recovery

The Kadisha Concession regularly collects consumption bills through the company employees; dwellers in Tallet el Mankoubin are generally committed to paying. Otherwise, according to the residents, they would be cut-off. As in the case of Beddawi Camp, electricity is provided 24 hours a day in Tallet el Mankoubin.

Repairs

In cases of damages, dwellers or the active committees call the Kadisha Concession, which usually responds to their needs and replaces the damaged pieces of the network. Representatives of the local committees explain this cooperation due to the connection of Al Aytam School to the same network (see figure 11); any cut-offs in the network would affect the school, which is affiliated to a political leader in the North.

Problems

The main problems in the electricity network in Tallet el Mankoubin is related to the following:

- Cut-offs that occur due to overload on the network, especially in winter when people use heating devices.
- The partial replacements of damaged cables, which reduce the conductivity of the electric current to houses.

Needs

Representatives of the local community expressed the need to replace partially repaired cables with new ones. The PC has contacted the Kadisha Concession regarding this matter. The company explained its inability to renew the network due to limited financial resources.

Road Networks

Current State

The AA of Tallet el Mankoubin lacks a network of paved roads. Dwellers have built their houses in close proximity, leaving narrow spaces for alleys between the houses. These unpaved and organic alleys vary in width from 2 to 1.5m. One main street passes through the neighborhood from the entrance and towards the boundaries with Beddawi Camp.

Implementation

The main street was paved with concrete in the early 1990s through a contribution from the different political factions in Beddawi Camp, in response to requests from the dwellers. Dwellers have resorted to the PC with this request mainly to allow for the passage of cars or ambulances in case of emergency. Most of the alleys are unpaved and some are covered with a concrete layer poured by dwellers in front of their houses.

Repairs

No stakeholder or institution carries the responsibility of repairing the road network in Tallet el Mankoubin. To fill the holes in the main street, dwellers prepare a concrete mix and cover the parts that are in front of their houses.

Problems and Needs

The main street in Tallet el Mankoubin is in urgent need for re-paving. The local community stresses the need of paving the roads in the AA, which would reduce the accumulation of sewage and rain water. For this purpose, the PC resorted to the Municipality of Beddawi and UNRWA to identify potential donors or implementing agencies. However, contacted agencies explained that they could not intervene due to the illegal occupation of land.

Most of the roads in Tallet el Mankoubin are unpaved

Priorities for Intervention

Intervention priorities in basic urban services in Tallet el Mankoubin were identified by representatives of the local community, starting in descending order with the most urgent, as follows:

1. Replacing septic tanks and implementing a developed sewage network that connects to all houses.
2. Upgrading or replacing the water network; establishing another water source (a new well) to provide for the increased population[3].
3. Paving the roads in order to reduce pollution and improve the quality of living conditions in the AA.

3 This need is supposed to be addressed in the previously mentioned water project funded by Kuwait Fund for Arab Economic Development (KFAED) in Beddawi.

Mouhajarin

Adjacent Area Profile

Location and Boundaries

Mouhajarin is located along the southern boundaries of Beddawi Camp. It is separated from the camp by a street from the north and surrounded by Beddawi from the south, west and east (see figure 10). The surrounding area of Beddawi represents a formal residential area, inhabited by Lebanese and some Palestinian families.

Ownership

The land on which this area is formed initially belonged to the PLO, which registered it in the name of the Islamic Organization (Awkaf) in 2001. Most dwellers do not pay rent, except for around 10 percent who have rented their houses from other Palestinian refugees (DRC, 2005).

Demography

According to the assessment carried by PU & NRC (2009), the total number of Palestinian households is 161 in Mouhajarin (677 dwellers), most of them registered with UNRWA and the Lebanese authorities. However, the number of households is stated to be 81 (930 dwellers) by the NC in Mouhajarin. Some of the families who presently live in Mouhajarin were displaced from NBC after the 2007 conflict.

History and Growth

The AA of Mouhajarin was created in 1982 with the displacement of Palestinian refugees from other camps in South Lebanon, mainly Tal el Zaatar, during the Israeli invasion. At the beginning of the Lebanese civil war, the land on which the AA existed was initially a cemetery that belonged to the PLO. The PLO helped displaced families build temporary shelters in the place of the cemetery. The local community refers to the area as 'the Gathering of Mouhajarin and Tal el Zaatar'.

Living Environment

The area of Mouhajarin comprises single-story and some two-story small attached houses distributed in two rows along narrow streets and alleys. Most walls are built with concrete and zinco roofs are common in the neighborhood. According to UNRWA CSO in Beddawi Camp, 38 houses are still composed of one room. The majority of these houses were built as temporary shelters to house Palestinian families who were displaced from other camps since 1982. However, dwellers still live in the same houses with the minimum improvements that they afforded to implement. Alleys separating rows of houses could reach a width of less than 1m, which compromises ventilation and lighting conditions in dwellings and contribute to an unhealthy living environment. One main road passes in the middle of the AA and separates a higher-level area in the west from a lower one in the east. This difference in levels creates problems in the winter due to the flood of rain water and sewage from the higher to the lower area.

The entrance along the main road in Mouhajarin

Local Governance of Basic Urban Services

Local Organizational Structure

The Neighborhood Committee (NC) in Mouhajarin was formed in 1982 with the creation of the AA. It was restructured and reactivated in 2007 to include nine younger dwellers that were already active and well-known in the neighborhood. The NC was formed through support from the PC in Beddawi Camp, which included the AA of Mouhajarin within sector D of the camp in order to communicate dwellers' concerns and needs.

The internal organizational structure between the NC, the SC and the PC is similar to that in Tallet el Mankoubin. However, it is noted that the NC in Mouhajarin overtakes more responsibilities, perhaps due to the existence of a mor e organized infrastructure networks that are in constant need of maintenance and repairs. Given the direct adjacency of Mouhajarin to the camp, the NC in the neighborhood enjoys a more direct relationship to the PC. In many times, the NC resorts directly to the PC to discuss dwellers' issues and concerns rather than mediating these through the SC.

Financial Resources

A neighborhood fund initiated by the NC is fed through monthly contributions of 2,000 LBP (1.3 USD) collected from each household in the AA. Money from this fund is used for the operation and repair of the electricity network and other urgent needs in the other sectors. The NC in Mouhajarin exempts the poorest dwellers from paying. In some cases, dwellers and the NC of Mouhajarin directly negotiate their needs with UNRWA without the mediation of the SC or the PC. The NC of Mouhajarin and a group of dwellers have addressed UNRWA CSO in Beddawi Camp with a signed letter requesting UNRWA to find a way for rehabilitating a number of houses in the AA.

UNRWA is currently involved in the provision of basic urban services in Mouhajarin as part of its NBC Emergency Programme, since some families have relocated from NBC to Mouhajarin after the 2007 conflict.

Figure 12: *Location and key BUS in Mouhajarin AA surrounding Beddawi Camp*

Water Provision

Water Source

Water is provided to the Mouhajarin AA from a well that was established by UNICEF in 1985 in Beddawi Camp, locally known as the "old UNICEF well". This well, supported by another four in the camp and one in the AA (see figure 12), provides water to around 25 percent of households in the camp and all households in Mouhajarin. Some Palestinian and Lebanese families living in the surrounding areas of Mouhajarin also benefit from this source. UNICEF has also constructed two collective water tanks to collect water from the wells. The water network was rehabilitated and renewed by the International Cooperation South - South (CISS) in 2009.

Network Implementation

UNICEF established the well and constructed a 60m^3 collective water tank to distribute water to sector D of the camp and Mouhajarin. It also implemented connections from the tank, through under-ground metal pipes, to collective manifolds in the AA. Dwellers used metal and plastic pipes to connect from the collective manifolds to their houses. They installed plastic and metallic individual tanks on the roofs of their houses for water collection.

Prior to the rehabilitation of the water network by CISS, dwellers in Mouhajarin suffered from severe problems related to the quantity and quality of water, mainly due to the ad-hoc methods of connection and the fact that the water network was becoming old and corroded. The NC discussed this issue with the PC in Beddawi and resorted to UNRWA CSO to negotiate the implementation of a new network.

According to the CSO, the opportunity to provide a solution materialized when CISS suggested a project for cleaning individual water tanks in Beddawi Camp. The CSO informed CISS of the water problem in Mouhajarin and negotiated the possibility of channeling the original project to implementing a water network in the AA. After visiting Mouhajarin and meeting with the NC, CISS agreed to the proposal. Such an initiative was facilitated given UNRWA interventions in basic urban services in Mouhajarin as part of the NBC Emergency Programme. The project connected to 123 households with a total cost of around 14,000 USD.

Operation

As mentioned previously, the PC in Beddawi Camp has delegated the management of water stations to UNRWA. Before that, the PC used to manage the water stations and UNRWA provided the fuel cost for the operation of the pumping generator.

Collective water manifolds recently installed by CISS in Mouhajarin

Repairs

UNRWA carries repair works to the wells, tanks and the main network connected to the collective manifolds in the AA. For repairs of the network from the collective manifolds to the houses, the NC collects money from dwellers to purchase materials and hire technicians.

Quantity of Water

The quantity of distributed water is sufficient, since it is operated 24 hours a day by UNRWA. The number of hours has decreased by around two hours a day most recently due to electricity cut-offs. Individual households' tanks with a capacity of 1m^3 are generally full all the time.

Quality of Water

Water in Mouhajarin is used for drinking, cooking and services. UNRWA carries regular monthly tests and daily chlorination of water. According to PU/NRC water analysis, a high residual chlorine concentration was found (PU&NRC, 2009). Dwellers have not complained of the quality of water; however they have mentioned its calcareous taste, as the case in all Beddawi.

Problems

Dwellers and the NC in Mouhajarin have expressed their satisfaction regarding current water provision.

Sewerage

Method and Implementation

Two sewage networks are connected to the houses in Mouhajarin (see figure 12). An old network was installed through collaboration between the camp PC and the displaced families to respond to the urgent needs of resettlement during the civil war. The PC used donations from the PLO to install the main sewage line and dwellers collected money to connect to it either individually or collectively in groups of four to six households. The average cost of connecting to the network, recently undertaken by a group of five houses, was reported to be 250 USD. Around 150 houses, which comprise the majority of population in Mouhajarin, are connected to this network. With the fast demographic growth of the neighborhood, new houses were built above the main sewage line; thus the network currently runs under the eastern rows of houses in the AA.

Another main line was installed by UNICEF in the early 1990s along the main street in Mouhajarin. Around 10 households connected their houses to this network. Other households were unable to connect to the new network due to the technical problems related to the uneven level of the area, as discussed below, or due to the high cost of connection.

Operation and Maintenance

In case of blockages in the sewage network, dwellers resort to UNRWA which sends workers or sewage tankers to solve the problem. UNRWA provides this service to dwellers in Mouhajarin as long as the problem exists in the network outside the houses. This service, as all UNRWA (informal) services in the AAs, is provided free of charge.

Repairs

In case of damages to the sewage network, dwellers take the financial and technical responsibility of carrying repair works. According to the CSO in Beddawi, UNRWA might assume the responsibility of repairs to the main sewage line under its NBC Emergency Programme.

Problems

The main problems in the sewerage sector in Mouhajarin is related to the natural slope of the AA, which is divided into one high and one low area separated by the main street. The main problems could be summarized as follows:

- The more recent and standardized network in Mouhajarin is not being used; the whole load is currently exerted on the old damaged network. Although the new network implemented by UNICEF is characterized by better standards, only few households (around 10) were able to connect to it. This is due to two reasons: firstly, most of the houses are lower than the main sewage line which makes it technically difficult to connect; secondly, the main line is located along the main street at a relatively considerable distance from the houses, which increases the cost of connection. As an affordable alternative, dwellers prefer to connect to the old network, which is suffering from damages and overload by the expanded population.
- Difficulty of accessing and rehabilitating the "old network" due its current location under the houses in the eastern part of Mouhajarin.
- Inadequate connections to the networks due to the use of under-sized pipes, connected in an individual ad-hoc manner. This causes flooding of sewage in the streets and into the houses.
- Corrosion and fractures in the old network, which causes leakage of sewage into the ground and potential mixing with the water network.

Needs

The local community in Mouhajarin stresses the need for a sound solution to the sewerage problem in their area. This requires the replacement of the old network or connecting the houses to the more recent network implemented by UNICEF.

According to UNRWA CSO in Beddawi, the local NGO 'Nabeh' studied the possibility of replacing the old sewage network in Mouhajarin and started excavations along the main street. However, the project was ceased due to technical difficulties.

Manholes installed by UNICEF in Mouhajarin

Solid Waste Management

Applied Method

Currently, UNRWA manages the collection and disposal of solid waste in Mouhajarin. Generally, dwellers place their wastes in plastic bags or buckets in front of their houses on the streets. An UNRWA driver and two workers collect these wastes in a small sized pick-up truck from 5:00 to 7:00 am and one worker sweeps the street. Collected waste is disposed at UNRWA collection point on the boundary of the camp. Later, UNRWA transports collected waste to the Tripoli Dump.

Before UNRWA started providing this service, dwellers used to individually throw their garbage in the Beddawi Mountain to the south of the neighborhood (see figure 12). When wastes accumulated, dwellers resorted to burning it in the open air and without any treatment. About seven years ago, dwellers decided to undertake steps to bring UNRWA's attention to this problem. A group of dwellers collected some garbage bags from the area and placed them in front of UNRWA offices in the camp to demonstrate their problem. According to the NC in Mouhajarin and some dwellers, UNRWA agreed to provide this service following this demonstration.

Problems

Problems in solid waste management is Mouhajarin are mainly related to:

- The lack of containers distributed in the AA.
- The accumulation of wastes in plastic bags and buckets in front of the houses, since UNRWA collects wastes for two hours in the early morning and dwellers place their wastes around the clock. According to interviewed dwellers, this problem causes them to continue disposing and burning waste in the Beddawi Mountain.

Needs

The local community in Mouhajarin expressed the need to place covered containers for solid waste collection in the neighborhood. The NC has notified the PC of this need and requested UNRWA to provide containers on the streets. This request has not been provided yet. UNRWA CSO in Beddawi Camp explained that sometimes dwellers refuse the placement of containers in front of their houses.

Electricity

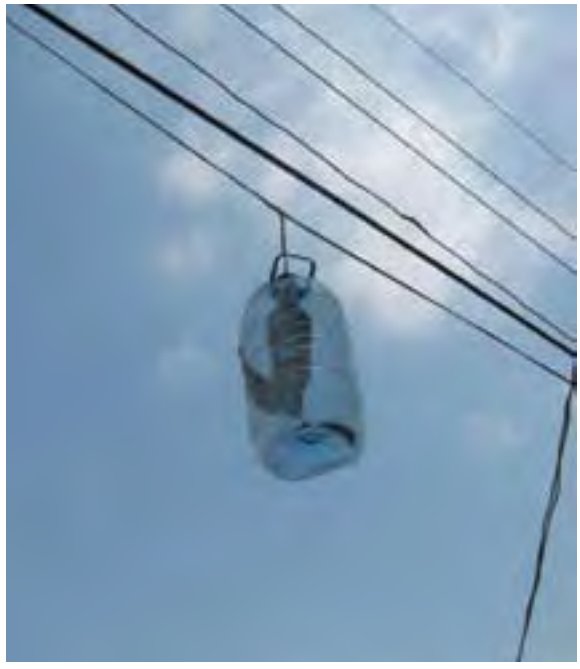
Source

Electricity is provided in Mouhajarin thorough the Beddawi Camp network, managed by the PC in the camp. The main source of electricity in Mouhajarin is the "Schools Station" located at the boundary of the camp (see figure 12). Two transformers with a total capacity of 400 and 630 KVA are installed in this station and feed sector D of the camp as well as Mouhajarin. Generally, electricity is available 24 hours a day.

Network Implementation

Before the implementation of this network, dwellers used to hook to the camp network through tapping at the electricity poles along the camp boundaries. The overload on the network used to cause frequent cut-offs and damages to the electricity stations in the camp.

In 2008 and to solve this problem, the NC in Mouhajarin suggested to organize the electricity network and coordinated its works with the PC in the camp. The NC discussed the suggestion with dwellers in Mouhajarin and collected 25,000 LBP (16.7 USD) from each household. The total amount was used to purchase and connect 14 electric distribution boards that were distributed in the



Basic methods for protecting exposed lighting cables in Mouhajarin

neighborhood. Each distribution board included 8 to 21 switches that connected to the same number of houses. In order to organize the consumption of electricity in the neighborhood, each household was provided with 10 amperes. Dwellers connected cables from electricity boxes to their houses at their own expense.

According to the PC, it had requested the Kadisha Concession to install an electricity network in Mouhajarin either through regular meters or circuit breakers. The Company did not provide this service and explained its decision in coherence with the Lebanese law that prohibits electricity provision in informal settlements.

Operation and Cost Recovery

The NC manages electricity in Mouhajarin under the wider structure of the PC in the camp. Operation and repair works carried by the NC are financed by the neighborhood fund in Mouhajarin. Due to limited financial and technical resources, the NC and the PC do not carry out regular maintenance to the network and their work is limited to repairs. Dwellers do not pay monthly consumption bills to EDL.

Repairs

In case of damage to the network, the NC uses money from the neighborhood fund to carry out repairs. This money is used to purchase required materials and hire local technicians. In case the required cost of repairs exceeds dwellers' capacities, the NC resorts to the PC for support. In an attempt to replace the old electric cables composed of several connected parts installed by dwellers in the AA, the PC used its connections with the Iranian Embassy in Lebanon to request a financial contribution. The Iranian embassy contributed an amount of 1,000 USD for each camp sector (total of 4,000 USD). The NC in Mouhajarin used its share from the sector allocation to replace some of the old cables.

Problems

The following problems occur in the electricity sector in Mouhajarin:

- The NC could not replace all electrical cables that are composed of several connected pieces due to limited financial resources. This leads to reduced electric conductivity and cable deformation.
- Cut-offs due to over-loads on the network, especially in winter when people use heating devices.
- Due to their over-worn and damaged state, old cables fall on the roads causing high risk to public safety. Dwellers use wooden hooks to manually stabilize the position of unshielded cables.

Needs

Representatives of the local community expressed the need to replace partially repaired cables with newly shielded ones.

Road Networks

Current State

One main street passes through the center of the neighborhood. The street is in urgent need of rehabilitation and repair. The other roads constitute a linear web of narrow alleys, which reach a width of less than 1m between the houses.

Implementation

The main street was paved with concrete by the PC in 1983, through financial contribution from the PLO. It wasn't until 2008, when CISS implemented the water project in Mouhajarin, that the street was paved again. However, it has been excavated by Nabeh at the beginning of this year and left on that state. Some alleys are covered with a concrete layer prepared and poured by dwellers in front of their houses. Roads in Mouhajarin do not comprise any storm channels for the drainage of rain water. Similarly, no street lighting exists.

Repairs

For repairs, dwellers prepare a concrete mix and cover the parts that are in front of their houses.

Problems and Needs

The local community stresses the need of paving the main street, which constitutes the entrance to Mouhajarin. Similarly, the narrow alleys between the houses are in need for rehabilitation and paving, which would reduce the accumulation of sewage and rain water especially during the winter.

The width of alleys in Mouhajarin compromises lighting and ventilation conditions

Priorities for Intervention

Interventions related to access to basic urban services in Mouhajarin were classified by representatives of the local community, in descending order of importance, as follows:

1. Replacing the old sewage network used in Mouhajarin with a sound and reliable network or implementing connections to the more recently established network by UNICEF.
2. Rehabilitating and renewing old and damaged electric cables.
3. Distributing covered containers for solid waste collection in the AA.

It is worth mentioning that dwellers in Mouhajarin do not only suffer from problems in BUS, but also in shelter. According to representatives of the local community and UNRWA, some shelters are in a very bad condition and in urgent need of rehabilitation. NGOs and donor agencies have usually refrained from carrying shelter interventions in the AA due to informality of ownerships.

Section II

Adjacent Area Surrounding Nahr el Bared Camp

1- NBC Adjacent Area

An Adjacent Area extends around Nahr el Bared Camp (NBC), known as the NBC Adjacent Area (NBC AA). In general, NBC AA constitutes a geographic and demographic extension of NBC that housed better-off dwellers from the camp and their extended families. Dwellers living in NBC and NBC AA refer to the latter as "the extension" of the camp or the "New Camp". Administratively, the largest part of NBC AA is located within the municipal boundaries of Muhammara and a smaller part is located in Bhannine (see figure 13). NBC AA includes a neighborhood known as Mouhajarin (Arabic translation of Displaced), since it was created during the civil war by Palestinian refugees displaced from other camps in Lebanon. Due to its proximity to NBC, Mouhajarin was destroyed during the 2007 conflict; a porject to rebuild it is under implementation by NRC. All neighborhoods in NBC AA display common characteristics in terms of access to basic urban services, especially after the NBC conflict.

After the end of NBC conflict in 2007, UNRWA divided NBC AA into five sectors; sector A, located within the municipal boundaries of Bhannine, and sectors B, C, D and E located within the municipal boundaries of Muhammara. Within these sectors, four areas that are located closer to the camp were indicated as 'prime areas' or 'primes', since they were more damaged than the rest of the AA. These prime areas are A', B', C' and E'. The sectors and prime areas of NBC AA, as categorized by UNRWA, are indicated on figure 14 hereafter. Because of the massive destruction and the high risk of explosives, a mechanism has been adopted by UNRWA in coordination with the government to return dwellers to primes areas. UNRWA, after obtaining permission from the Lebanese Army Forces, carries field visits to examine the prime areas and identifies necessary needs for accommodating dwellers. After finishing rubble removal and cleaning works, UNRWA makes the prime

areas accessible to the public and delivers the houses to their dwellers. At the time of the writing of the report, B' and C' are opened for the public and E' is partially opened. A' is not opened to the public yet but is expected to be as soon as rubble removal and road clearing works are finished.

NBC AA has been strongly affected by the 2007 conflict in NBC. The military confrontations that took place between the Lebanese Army Forces and Fateh al Islam radical group caused damages to houses, roads, social institutions and basic infrastructure in the AA. Shelter repair and reconstruction works in NBC AA are still conditioned by the development of an enabling institutional framework that addresses the complicated ownership issues in the AA.

The original population in NBC AA has recently doubled in size due to the relocation of displaced families from NBC in 2007. Overcrowding has resulted in the worsening of living conditions in NBC AA due to pressure exerted on basic urban services and infrastructure networks and the unhealthy living environments. In addition, some relocated families live in garages that were transformed to temporary shelters, while others live in temporary prefabricated (metallic) units known as Barraksat that were constructed by UNRWA for the urgent accommodation of displaced families. In order to enhance living conditions in NBC AA and foster recovery, UNRWA has initiated an Emergency Programme. Under this Programme, UNRWA currently offers educational and health services in newly established schools and health care

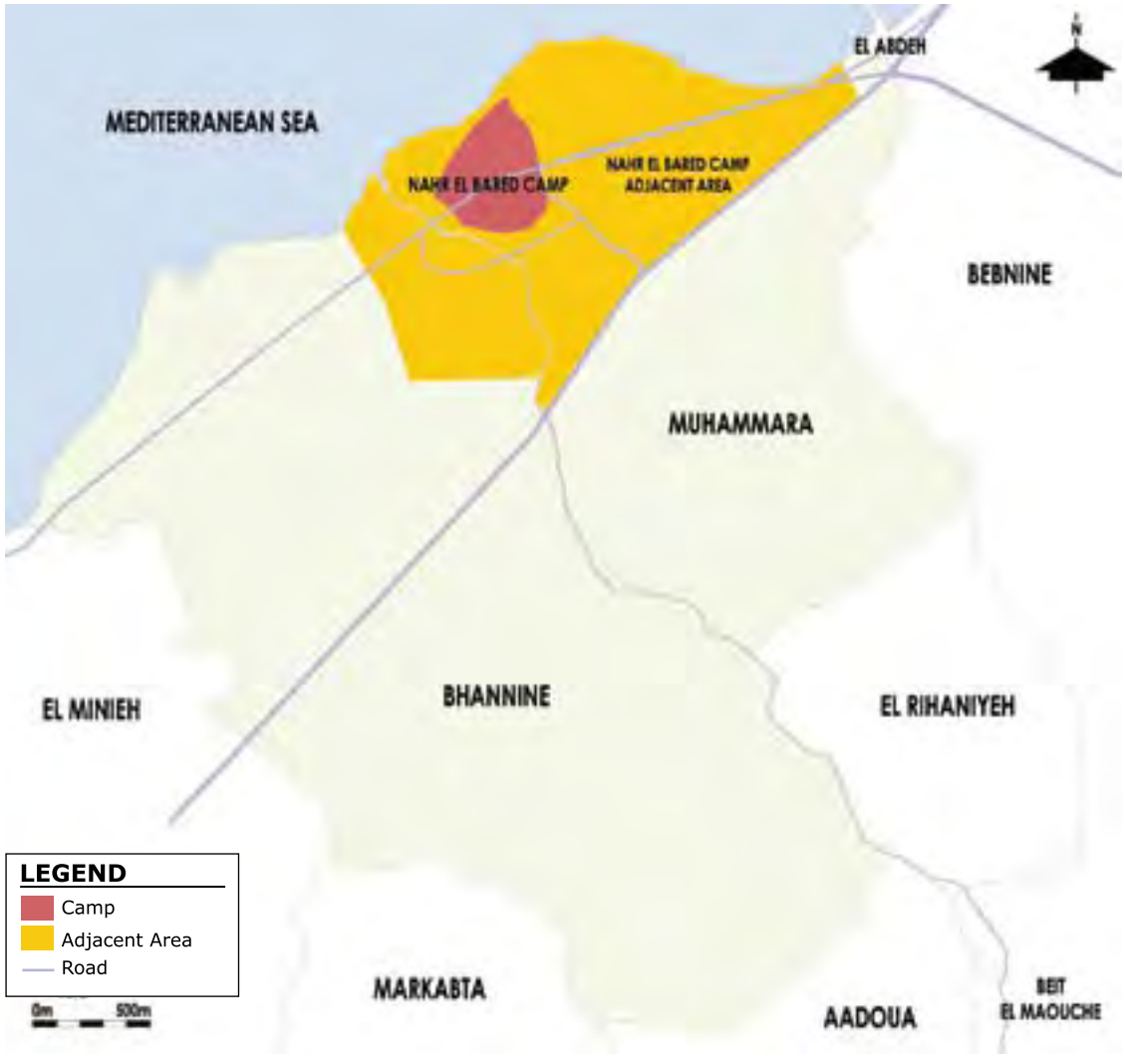


Figure 13: *Context and location of NBC AA, North Lebanon*

Figure 14: *The sectors and prime areas of NBC AA (Source UNRWA)*

centers in NBC AA and provides basic urban services to dwellers in the AA. Infrastructure networks were imminently rehabilitated and upgraded by UNRWA and other UN-agencies and NGOs through contributions from the international donor community. However, the provision of BUS in NBC AA is supposed to be terminated after the reconstruction of the camp and the return of the displaced.

The NBC conflict has also economically affected dwellers in NBC AA, who mostly worked in the trade sector. In addition to damages and losses in commercial enterprises, traders in NBC AA have lost their customer base. This is due to the worsening financial situation of the local community and more significantly to the restricted access of residents from the surrounding. These residents, who constituted the main clients, are not allowed to enter NBC AA without obtaining renewable permits from the Lebanese Intelligence, as mentioned hereafter.

Relationship to Surrounding

Relationship to the Camp: NBC AA is locally regarded as an integral part of NBC. Most families who live in the AA are originally from the camp and strong social ties exist between dwellers of NBC and the AA. When the houses of residents were destroyed in NBC, most of the families relocated to NBC AA either in separate units or with relatives.

The local community considers the AA as an 'extension' of NBC and is locally governed by the same Popular Committee in the camp. The PC divides the AA into three sectors, two of which complements the four sectors of the camp (A, B, C and D) and are known as sectors E (هاء) and F (واو) and the third sector comprises the Mouhajarin neighborhood. The PC and the local community consider all sectors to form what they refer to as the 'New Camp' (while NBC is referred to as the Old Camp). Dwellers in NBC AA are represented in the PC by the three Sector Committees. It should be noted that the PC has relocated its office from the camp to NBC AA after the 2007 conflict.

Before the destruction of NBC, dwellers in the AA benefited from social, educational and health care services operated in the camp by UNRWA as well as a wide array of local NGOs. Students in NBC AA were enrolled in UNRWA schools established in the camp. The AA included some well known private health clinics and nurseries that provided affordable services to dwellers in the camp and the AA. In terms of basic urban services, some dwellers in the AA informally connected their sewage and electricity networks to those in the camp.

Relationship to Surrounding Villages/ Towns: NBC AA is separated from its surrounding by the network of roads including the highway that separates it from Muhammara (see figure 14). The two entities are physically connected by a pedestrian bridge that ties the entrances of the AA and the town of Muhammara. In addition to mixed marriages, the AA was socially connected to its surrounding through the wide array of affordable services it presented, mainly in the trade and health care sectors. Most Lebanese dwellers living in the surrounding towns such as Muhammara, Bhannine and Bebnine used to purchase most of their daily needs and other products (construction materials, clothes, furniture, etc.) from the market in NBC AA and NBC. However, due to the NBC conflict and the new security measures applied by the Lebanese Army Forces (LAF) around NBC AA, spatial and socio-economic connections between the AA and the surrounding have been strongly impacted. Some of the big traders have opened new shops and stores in the surrounding towns, mainly along the highway in Abdeh and Muhammara.

After the end of the clashes in NBC, the LAF separated NBC AA from its surroundings by concrete and wire fences. The Army has established checkpoints in three locations around the AA, one of which was present before the conflict. Access to NBC AA is conditioned by permits granted by the Lebanese Intelligence that need to be renewed every six months. Access from the surrounding areas is further restricted by the extensive security procedures at checkpoints. These procedures apply to Lebanese as well to Palestinian residents living inside or outside NBC AA. The LAF is currently allowing visitors to enter NBC AA without permits at the Abdeh checkpoint after investigating visitor's records in the Intelligence office on site.

Relationship with Other Stakeholders

Prior to the NBC conflict, the local community in NBC AA used to depend mainly on local collective initiatives for accessing basic urban services. They also used to communicate their needs to surrounding municipalities or to the Popular Committee (PC) in NBC through the Sector Committees (SCs). After the NBC conflict and the relocation of displaced families to the AA, new dwellers formed additional local committees that represented the displaced families living in UNRWA temporary prefabricated shelters (*Barraksat*). A total of four "Barraksat Committees" discuss their issues with dwellers and communicate them to UNRWA. These committees coordinate their work with the PC.

PLO and Palestinian Political Factions: The relationship between the local community on the one hand and the PLO and the political factions on the other

is usually mediated through the PC. The PC resorts to the PLO for financial assistance and for large-scale interventions. It also resorts to the different political factions active in the camp and the AA, especially Fateh and Hamas.

UNRWA: Given the post-conflict role assumed by UNRWA in BUS provision in NBC AA, the local community directly resorts to UNRWA Camp Service Officer (CSO) or communication officer in their offices in the AA. Similarly, representatives from the Barraksat Committees resort to UNRWA offices in the AA to communicate their particular needs and concerns. A process of bi-lateral negotiations governs the relationship between the local community and UNRWA. Dwellers and local committees sometimes resort to collective lobbying in front of UNRWA offices in the AA to communicate their urgent needs and concerns in different domains. This is usually followed by negotiations between the two parties to reach common ground. The local committees coordinate their actions with the PC; similarly UNRWA keeps the PC informed of its responses and initiatives to guarantee general consent in the AA.

Surrounding Municipalities: According to the PC, prior to the NBC conflict, dwellers in the AA used to resort to the surrounding municipalities to obtain 'permissions' for building houses. The PC explained that mostly before 2001, dwellers obtained these permissions from surrounding municipalities as a form of 'protection' to build their houses; the PC and the surrounding municipalities have established a common understanding regarding this issue with the Police.

After its establishment, the Municipality of Muhammara attempted to collect solid waste in part of NBC AA in exchange of a monthly fee of 5,000 LBP (3.3 USD) per household. However, the service stoped shortly due to weak commitment of paying fees; the PC explains the failure of this initiative on the basis that the municipality did not involve the PC as a partner or hire any Palestinian workers from NBC or the AA.

According to the municipalities of Muhammara and Bhannine, they do not provide basic urban services in NBC AA due to the current security measures implemented by the Lebanese Army Forces and due to limited financial resources.

The Mayor of Bhannine explained that the relationship with the Palestinian community in NBC AA is 'weak' as a result of the restrictions on municipal work and services in such areas. He noted that before the NBC conflict, Bhannine Municipality was directly involved in providing some BUS, mainly solid waste collection, to the residents in NBC AA and had an excellent relationship with the Palestinian community.

Representatives of the local community explained that the nature of relationship with the surrounding municipalities, mainly Muhammara, has been negatively affected by the recent NBC conflict. The PC expressed its hopes to witness greater support from surrounding municipalities for the reconstruction in the camp and the AA and the mitigation of security measures around NBC AA.

1. Muhammara Profile

Area: 3.845km²
Population (excluding camp and AA): 5,000 total dwellers; 3,000 registered population
Year of Establishment of Municipality: 2004

Geographic Location

Muhammara is a town located in the Qadaa of Akkar, 17km north of Tripoli in North Lebanon. It extends over an area of 3.8 km². It is bound by Bebnine from the east, Rihaniyeh from the south, Bhannine from the west and the Mediterranean Sea from the north (see figure 13).

Demography

The total residents in the town of Muhammara is estimated to be around 5,000, excluding Palestinian dwellers living in NBC and NBC AA. However, the registered population represent no more than 60 percent of the total residents (3,000) with the rest of the inhabitants originating from the surrounding villages in the North.

Local Authority

The Municipality of Muhammara was established in 2004 and is a member of the (inactive) Jourd el-Kaytaa Union of Municipalities. Its municipal council includes 12 members and a total of 3 committees; these are: procurement; works; and social and health.

The Municipality of Muhammara provides basic urban services mainly in the high density residential area located in the center of the town, which represents only 50 percent of the total area of Muhammara. In the extended areas around the center, locally known as the suburbs, BUS are either not connected or not properly delivered. This is mainly attributed to the limited financial resources of the municipality that pose restrictions on service provision. The Municipality does not provide any BUS in NBC AA.

To carry out its services, the municipality hires 4 daily workers and has no administrative staff. The municipality owns the following machines: 2 pick-up trucks for solid waste collection and general works; 1 sewage tanker and 1 back-loader (JCB) for general works. These machineries were donated to the Municipality by UN-HABITAT in 2008, as part of its project in Muhammara and NBC AA.

For financial resources, Muhammara depends on its share from the centrally managed fund channeled through the IMF and direct taxation. However, commitment to paying municipal taxes is relatively low, as informed by the municipality. The lack of financial and technical resources and the recent establishment of the municipality have affected municipal service delivery in Muhammara. A number of gaps and shortfalls exist today in terms of BUS, as discussed below.

Basic Urban Services in Muhammara

Urban service networks in Muhammara are generally in need of rehabilitation. The state of basic urban services could be described as follows:

Water Provision: In 2005, the municipality initiated the rehabilitation and completion of the existing undersized water network in Muhammara and excavated an artesian well for this purpose. Due to the lack of financial resources, this network connects to only 40 percent of houses in Muhammara, most of which are concentrated in the high density residential area in the center of the town. A feeding reservoir that is a contribution from Hariri Foundation was established in 2008 for cases of short supply, with a total capacity of 300m³.

Sewerage: Two years after its establishment, the Municipality of Muhammara started rehabilitating the sewage network through hiring private contractors and machineries. However, works have stopped due to the lack of financial resources in the municipality. Currently, this network covers almost 50 percent of existing houses in the town of Muhammara, with most of the unconnected houses located on the high hills or valleys away from the center of the town. Some of these households depend on septic tanks for sewage disposal. While one main line of the sewage network ultimately discharges in the sea, another discharges in the Nahr el Bared River. No treatment of sewage takes place before discharge.

Solid Waste Management: The Municipality of Muhammara provides solid waste collection to all residents in the town. Since solid waste containers are insufficient, the municipality has distributed alternative barrels with smaller capacities. Waste is dumped in a private dump in Adweh-Minieh.

Electricity: An electricity network with transformers was established by EDL in the town of Muhammara and covers around 90 percent of the houses. However, shortage in electricity provision on roads is observed. UNDP has provided support for emergency repairs of the electricity system in Muhammara and implemented two MV/LV transformers and their related accessories through funding from CISS.

Road Networks: A well-spread road network exists in the town of Muhammara. The Ministry of Public Works has executed a highway that connects North Lebanon to Syria passing through Muhammara. Around 50 percent of the internal roads are not asphalted and almost all lack sidewalks and pedestrian networks. The highway lacks safety requirements such as standardized turns, sidewalks and traffic signs.

Relevant Projects

Entwicklungsbank (KFW) allocated 12 million USD for the establishment of a sewage main collector between Tripoli wastewater treatment plant and the Nahr el Bared River, including pumping and lifting stations and household connections. The tender process is finished and the work should start in 2010 on the main collector. Another project is currently under study by the Kuwait Fund for Arab Economic Development (KFAED) for the implementation of a sewage network in the villages around NBC. The funding of this project is 6 million USD. Comitato Internazionale per lo Sviluppo dei Popoli (CISP) is also studying the rehabilitation of the sewer system in two locations in Muhammara.

In addition, the World Bank has allocated 100,000 USD for the rehabilitation of the highway and some internal roads in Muhammara. In the electricity sector, a new study is being prepared by the Council of Development and Reconstruction (CDR) for the electricity network in the area.

2. Bhannine Profile

Area: 7km²
Population (excluding camp and AA): 14,600 total dwellers; 9,000 registered population
Year of Establishment of Municipality: 1993

NBC AA is separated by the Bared River from agricultural lands in Bhannine from the south-west and by the international highway from Muhammara in the south-east (Source NBRC)

Geographic Location

Bhannine is a village located in the Qadaa of Minieh-Denniyeh, 15km North of Tripoli in North Lebanon. It extends over an area of 7km². Bhannine is bounded by Muhammara and Rihaniyeh from the east, Minieh from the west, Merkebta and Adoua from the south and the Mediterranean Sea from the north (see figure 13).

Demography

The total population in Bhannine is estimated by the municipality at around 14,600, of which 9,000 are registered population. These numbers exclude Palestinian dwellers living in sector A of NBC AA.

Local Authority

The Municipality of Bhannine was established in 1993 but the first municipal council election was in 1998. It is a member in the Minieh Union of Municipalities. Its municipal council includes 14 members and a total of 5 committees: procurement; works; tender; receipt; and social and health.

Basic urban services provided by the Municipality of Bhannine cover the entire town. More recently, the municipality has been focusing on improving service delivery in the suburbs of the town. The municipality does not provide BUS in Sector A of NBC AA.

To carry out its services, the municipality hires 5 employees: 3 of them are daily workers paid by the Minieh Union of Municipalities, 1 administrative staff member and 1 policeman. The municipality owns 1 back-loader (JCB) for general works and uses 2 pick-up trucks for solid waste collection and general works and 1 Bob Cat that are owned by the Union.

The main challenge that faces BUS delivery in Bhannine is the lack of financial, human and technical resources. The municipality depends on its share from the IMF and the revenues raised locally through direct taxation. According to the municipality, only 20 percent of residents pay municipal taxes.

Basic Urban Services in Bhannine

Infrastructure networks in Bhannine are generally in need of rehabilitation and upgrading, mainly the water and sewage networks. The state of basic urban services is summarized as follows:

Water Provision: The public network used in Bhannine was installed over 30 years ago and is in a bad condition. It only covers around 30 percent of houses in the town. Residents of unconnected houses generally depend on purchasing water from private retailers. A new urban network was under construction by CDR, but works have stopped due to problems with the contractor. In coordination with the relevant Water Authorities, the municipality started a project for connecting a new network to the main water source in "Ouyoun el Samak". This project is funded by the municipality and the Minieh Union of Municipalities; the Water Authorities will make all the necessary house connections.

Sewerage: A recently implemented sewage network exists that is in need of upgrading. This network was executed by the Council of Development and Reconstruction (CDR) in 2000 but it only covers 30 percent of houses. Unconnected households use septic tanks or irrigation channels for sewage disposal. Currently the network discharges in the sea without any treatment.

Solid Waste Management: The collection and disposal of solid waste is managed by a private contractor hired by the municipality in exchange of 4 million LBP (2,666 USD) per month. The contractor has distributed 130 containers inside the town and the municipality has purchased 170 more containers to cover all areas. Waste is currently dumped in Adoua Dump, until the opening of the waste management plant currently under execution in Rawda.

Electricity: The electricity network installed by EDL in Bhannine is in good condition and covers 95 percent of the town. After the NBC conflict, the municipality restored and upgraded sections of the lighting network in NBC AA due to requests by the Lebanese Army Forces for security reasons.

Road Networks: An asphalted road network covers 60 percent of the town. The roads are in a good condition but needs some repairs. The municipality has been asphalting the roads periodically for the past five years; for this purpose, it takes its yearly share from the municipal union in form of asphalt.

Relevant Projects

Bhannine will be included in the KFW sewerage project previously mentioned for Muhammara.

3. NBC Profile

Location: Muhammara, North Lebanon
Year of Establishment: 1949
Estimated Population: N/A (before the conflict 32,726)

Access to the Camp

After the destruction of NBC, access to the camp has been restricted except for permitted UNRWA staff and contractor employees. The Lebanese Army Forces (LAF) has established checkpoints at the entrances of the camp. Access to NBC is conditioned by special permits granted by the Lebanese Intelligence; these permits are different from those given to access NBC AA.

Local Authority

At the local level, the Popular Committee (PC) in NBC was established in 1973 representing the semi-official Palestinian Authority in the camp. The PC includes 16 members representing the different political factions in the camp and one independent member. The PC divides the camp into four sectors A, B, C and D. For maintaining basic urban services in the camp, mainly electricity, the PC used to collect monthly fees of 3,000 LBP (2 USD) from each household.

UNRWA Services

UNRWA started its services in NBC in 1950. Before the 2007 conflict, UNRWA managed the following basic urban services in the camp: sewerage; water provision; solid waste collection and disposal; and road networks. It also provided educational and health services through five schools (including one that was under construction at the time of the conflict), one kindergarten and one health care center. These services were located in the UNRWA compound that was built on an adjacent plot to the official camp. After the conflict, these service institutions have been transferred by UNRWA to NBC AA.

Active NGOs

A number of international and local NGOs were active in NBC prior to the conflict. These included among others Al Najdeh, Beit Atfal el Somoud, Christian Aid, the Finnish Psychologists for social responsibility, Campaign for the Children of Palestine, Tavolan Valdese and the Palestinian Red Crescent Society. These NGOs provided services that included sponsorship, mother and child health programs, special programs for the disabled, vocational trainings, livelihoods projects, kindergartens and medical services and hospitalization. After the NBC conflict, many of these NGOs have relocated their centers to NBC AA.

Basic Urban Services in NBC

The management and state of basic urban services in pre-conflict NBC could be summarized as follows:

Water Provision: Water was available in the camp in sufficient quantities through the UNRWA network. Dwellers depended on four wells and three water towers, established by UNRWA and by the PC through funding from the PLO. After 1982 and with the increase in population numbers, INGOs intervened to construct two new water towers and replace an old one. In 1990, UNRWA replaced its two wells by larger ones and the PC delegated the management of its wells to UNRWA. In 2005, the Italian NGO Cooperazione e Sviluppo (CESVI) established two new wells and water towers and rehabilitated the water network.

Sewerage: Houses in NBC were properly connected to a sewage network managed and operated by UNRWA. The PC was the first to construct main sewage lines in the camp, to which dwellers connected their houses. Later on, UNRWA constructed new primary lines and rehabilitated the network. Four months before the conflict, the entire sewage network was upgraded and rehabilitated by joint efforts from INGOs.

For the current reconstruction of NBC, UNRWA has coordinated with the Entwicklungsbank (KFW) on their previously mentioned sewage project (see page 103) to ensure that sewage systems in both the camp and the AA are connected to the pumping station that will pump sewage into the KFW trunk line to Tripoli plant.

Solid Waste Management: UNRWA workers used to collect wastes to UNRWA collection points in NBC AA to be finally disposed in the Mina–Tripoli Dump.

Electricity: Until 1976, around 300 houses located in NBC were connected to EDL network and used to pay monthly bills to the agency. In the early 1980s, the PC took over the responsibility of the electricity service in the camp. A medium voltage line was connected to the camp and three stations were built. For maintenance, the PC collected monthly contributions from each household in NBC.

Road Networks: The road network in NBC is comprised of narrow streets and alleys, paved with concrete by the PC and dwellers. One main street divided the camp into two parts and housed the NBC market. Before the implementation of the highway that links Lebanon to Syria, this road was paved and maintained by the state since it connected the North to Syria.

An initial plan for the reconstruction of NBC was prepared jointly by the government of Lebanon, UNRWA and the Nahr el Bared Reconstruction for Civil Action and Studies (NBRC). NBRC is a grassroots-based initiative that worked on the production of the masterplan of Nahr el Bared Camp. UNRWA has tasked its engineers, who prepared the preliminary infrastructure design in NBC, to prepare an infrastructure feasibility study for the AA to ensure compatibility of infrastructure systems in both NBC and its AA[4].

4 For more information on the interaction of the two systems and planned infrastructure interventions in NBC AA, refer to the Vienna International Donor Conference document (Government of Lebanon, 2008).

The destroyed Nahr el Bared Camp surrounded by the extended Adjacent Area (Source NBRC)

4. The AA: Profiling and Access to BUS

This section presents the profile and the detailed findings concerning dwellers' access to BUS in NBC AA.

Figure 15: *NBC and NBC AA, North Lebanon*

NBC AA

Adjacent Area Profile

Geographic Location

NBC AA is located directly around Nahr el Bared Camp, as shown in figure 15. To the south, the international highway that passes through Muhammara separates NBC AA from the town. NBC AA is bordered by Bhannine from the west, Bebnine from the east and the Mediterranean Sea from the north.

Demography

Before the NBC conflict and according to the PC, around 1,887 households (10,000 dwellers), comprised mostly of Palestinian and some 200 Lebanese families, lived in NBC AA. According to the assessment carried by DRC (2005), 1,574 households (8,500 dwellers) lived in NBC AA, 74 of whom (400 dwellers) in the Mouhajarin neighborhood. After the NBC conflict, around 2,075 households have relocated to NBC AA by February 2009 (Lebanon Support, 2009). As such, the current population in NBC AA has reached an estimated 3,962 households (20,999). According to the PC, around 75 percent of families displaced from NBC have relocated to the AA.

History and Growth

Most of NBC AA was formed in 1984-1986 as a demographic expansion of NBC. Due to overcrowding in the camp, dwellers purchased plots of land around NBC and built houses for their children and extended families. This was made possible by the relatively high purchasing capacity of NBC dwellers who used to run prosperous trades or receive money from family members working abroad. The Mouhajarin neighborhood was formed in 1983 by Palestinian families displaced from other camps for Palestinian refugees in Lebanon mainly in the South.

Land Ownership

Palestinian dwellers purchased the lands on which they built their houses from private Lebanese owners. In NBC AA, there is no trespassing by Palestinian dwellers on Lebanese properties and all transactions have generally been concluded 'amiably' between the parties involved. However, dwellers did not register their properties officially in the Land Registry. Instead, to prove ownerships, they relied on power of attorneys that were locally certified only at the Public Notary. In addition to private properties, a large part of the land in Mouhajarin neighborhood belonged to the PLO, which was registered under the name of the Islamic Organization 'Awkaf' in 2001. Dwellers built their houses in NBC AA without obtaining legal permits or abiding by the formal building regulations and codes.

Living Environment

NBC AA is comprised of concrete buildings with an average height of four to five stories and generally spacious apartments. The state of these buildings has dramatically worsened after the NBC conflict. As a result of the armed confrontations and bombing, most houses were damaged and some were partially or completely destroyed. Some damaged houses are structurally unsound and are in urgent need of stabilization. The living environment in NBC AA is worse for displaced dwellers living in the prefabricated units constructed by UNRWA as collective shelters. Families live in one, two or three attached units depending on the number of family members. Roads are comprised of linear streets and alleys of acceptable width.

NBC AA after the end of the 2007 conflict (Soource NBRC)

Local Governance of Basic Urban Services

Local Organizational Structure

Three Sector Committees (SCs) of sectors E, F and Mouhajarin are represented in the Popular Committee (PC) of NBC. Prior to the NBC conflict, the PC used to manage water provision in NBC and parts of the AA. Dwellers communicate their needs directly to the PC or through the SCs. The newly formed "Barraksat Committees" operate under the PC structure and coordinates their works with the previous.

Financial Resources

NBC AA did not have a local fund separate from that of the camp. The PC used to collect monthly contributions of 3,000 LBP (2 USD) from each household in the camp and some households in the AA. Money was mainly used by the PC for the maintenance of water and road networks. Currently, no funding system is available at the local level, since UNRWA is assuming the responsibilities of operating and maintaining basic urban services in NBC AA.

Figure 16: *Location and key BUS in NBC AA*

Note: Infrastructure networks are not covered in the prime areas since works are still in the early phase of gradual implementation. UNRWA has recently completed some Water and Sanitation (WATSAN) activities in B', C', and parts of E'. These activities include the implementation of main and secondary water and sewage networks and drainage systems along the main roads. The Italian Cooperation donated 5 million Euros (7.2 million USD) to CDR for structural and emergency repairs of damaged buildings in the primes.

Water Provision

Water Source

Households in NBC AA are connected to the water network established by CISS in 2006 and rehabilitated after the NBC conflict as part of UNRWA Emergency Programme. The network is fed through four water wells available in the AA and operate with four water tanks that distribute water to collective manifolds in NBC AA. Another water tank is currently being built by Hamas and one tank is not operational.

Before the implementation of this network, dwellers in the AA depended on private wells and few wells managed by the PC. Some of these private wells are still operational.

Network Implementation

After the end of the clashes, UNRWA and UNICEF in collaboration with Islamic Relief (IR) initiated restoration of secondary water lines, house connections to the main lines, maintenance of manholes, excavation of wells and provision of collective water tanks. Other projects included the installation of service connections, pipelines and tanks by PARD; the implementation of household connections and storage facilities and inspection of wells by UNICEF; and the restoration of secondary water networks by Welfare Associates. Moreover, the International Committee of the Red Cross (ICRC) has installed a 2,700m main water network and a new water reservoir and rehabilitated two water tanks. Another water tank has recently been built by the PC through donations from Hamas. According to the PC, dwellers installed the connections from the collective manifolds to their houses.

Operation

The water network in NBC AA is currently operated and maintained by UNRWA in collaboration with UNICEF and IR. Dwellers do not pay any fees for the operation of this service.

Repairs

In collaboration with UNICEF, UNRWA takes the responsibility of repairing damages in the water network. UNRWA uses its annual budget to hire classified contractors and workers for repair works. IR has recently repaired a water tank to be used in NBC AA.

Quantity of Water

According to representatives of the local community, water reaches all houses and is sufficient to fill households' private tanks. Almost all households have 1m³ private plastic tanks on the roofs of their houses. Some tanks however do not include float valves, which lead to water over-spilling.

Quality of Water

UNRWA carries periodic testing and chlorination of water at the boreholes level. However, representatives of the local community expressed their concern of potential contamination of water sources and the network after the recent conflict. Dwellers generally use water from the network for cooking and services. Those who can afford, purchase potable water from private retailers especially for children use. Private wells that are not managed by UNRWA are believed to be contaminated, which is causing dwellers to dig new wells for personal use.

Main Problems

The most significant problems in the sector of water in NBC AA are:

- Over-pressure exerted on the network due to increased demand by the current population;
- Undersized pipes in parts of the network upgraded by UNRWA;
- Potential contamination of water after the conflict.

Needs

Representatives of the local community expressed the need to further upgrade the water network, especially in terms of increasing the size of pipes, to respond to the over-demand caused by the increased population.

Collective water manifolds installed by UNRWA and UNICEF after the conflict in NBC AA (Soource NBRC)

Drilling of water wells in NBC AA (Soource NBRC)

Sewerage

Method and Implementation

A network that was implemented through donation from the European Commission Humanitarian Aid (ECHO) in NBC AA was upgraded by a number of agencies after the end of the clashes in NBC.

As part of its Emergency Programme, UNRWA upgraded the sewage network pipes and manholes in the AA. Islamic Relief (IR) in cooperation with UNICEF connected a number of houses in NBC AA to the main sewage line. Similarly, CISP has been working on the rehabilitation of the sewage network, the completion of missing pipes and the connection of some houses to the network. Another project has been recently implemented by PARD, which included the installation of secondary sewers and the rehabilitation and installation of household connections to the main sewers.

UNRWA has coordinated with the Entwicklungsbank (KFW) to connect the sewage system in NBC AA (and the newly built camp) to the pumping station that will pump sewage into the KFW trunk line and to Tripoli waste water treatment plant.

Prior to this network, dwellers have built individual and collective sewage lines that discharged directly into the sea and water channels or connected to the surrounding camp and municipal networks. Repair works were carried by dwellers. Some households especially in Mouhajarin neighborhood used to depend on private septic tanks.

Operation and Maintenance

In collaboration with UNICEF, UNRWA currently carries maintenance works to the sewage network. UNRWA empties and maintains the few existing septic tanks through hiring sewage tankers.

Repairs

Dwellers resort to UNRWA offices in NBC AA for repairs in the sewage network. UNRWA currently carries repair works from its own budget.

Problems

According to UNRWA, problems in sewerage in NBC AA are mainly related to the following:

- Insufficient household connections;
- Irregular maintenance due to the lack of funding;
- Increased pressure on the sewage network due to the over demand caused by the increased population density;

Flooding of sewage and rain water from Muhammara to NBC AA

- Inadequate connection to the network by new comers without referring to UNRWA, which results in improper connection, inconsistent dimensions and pollution.

According to the PC the main problems in sewerage in NBC AA are summarized as follows:

- The existing network was not designed to take into consideration the uneven levels of the ground or to respond to future population expansion;
- Overlapping with irrigation and storm water networks;
- Lack of periodic maintenance and repair works.

Needs

The sewage network in NBC AA is in need of more regular maintenance works and further upgrading to respond to site conditions and to provide for the current over-demand.

Solid Waste Management

Applied Method

UNRWA currently manages solid waste collection in NBC AA using its own trucks and dumper collectors. For this purpose, UNRWA has distributed containers for solid waste collection in the different neighborhoods. UNRWA hires workers from NBC and the AA and provides this service free of charge. Collected waste is disposed in the Mina–Tripoli dump.

Before UNRWA provided this service as part of its Emergency Programme, dwellers used to depend on private service providers for solid waste collection. A person in each sector operated a private dumper and collected solid wastes from houses in exchange of a monthly amount ranging from 5,000 to 7,000 LBP (3.3 to 4.7 USD) per household. Wastes were collected in two of UNRWA collection points in the AA to be transported to the dump by UNRWA.

Problems

Representatives of the local community expressed their satisfaction with solid waste management currently in NBC AA.

Needs

The PC stressed the necessity of defining a sustainable method of solid waste management in the future, if UNRWA halts this service after the reconstruction of NBC.

Solid waste from NBC AA is transported by UNRWA to the Mina – Tripoli Dump

Electricity

Source

Electricity is provided in NBC AA by EDL. Four stations were installed by EDL in the AA following requests from the PC. This network has been rehabilitated by UNRWA and UNDP after the end of the clashes in NBC. The frequency of electricity provision is similar to that in the surrounding (every other six hours).

In addition, UNRWA provides temporary shelters that are not connected to the main network with 2 Amperes from a temporary network supplied by UNRWA generators. These generators are operated for two hours during the day and five hours during the night.

Network Implementation

EDL installed electric transformers and connections to household meters since the 1980s. More recently and through collecting financial contributions from dwellers in the AA (100 USD per household), the PC built the rooms for the electricity stations in the AA.

After the end of the clashes, UNRWA together with UNDP started emergency repairs of the electricity system in NBC AA. Works included direct intervention by EDL on the ground, in particular at the assessment stage and the technical supervision of works. The repair works were technically approved by EDL. UNRWA and UNDP advocated for EDL and the LPDC to ensure the connection of beneficiaries is maintained. As a result, EDL agreed to bear the cost of unpaid previous subscriptions. Regarding new subscriptions, some dwellers applied for connections through financial support from active stakeholders in the camp. For example, Hamas donated 1,000 meters for dwellers in the NBC AA. In addition, a street lighting network was completely implemented in the NBC AA, excluding sector A.

It should be mentioned that in order to apply for meters at EDL, dwellers in NBC AA are requested to present accommodation certificates (افادة سكن) from the PC (see Annex 3).

Operation and Cost Recovery

EDL is responsible for maintenance works in the electricity network in NBC AA. The agency collects monthly consumption bills from subscribers to the network. Concerning street lighting in the AA, an agreement was achieved with the Municipality of Muhammara to pay the recurrent cost of the street lighting installed by the contractor of UNDP.

Repairs

In case of damages to the electricity network, dwellers and the PC contact EDL, the latter sends workers to repair the damages. In cases of delay, dwellers collect money from each other to implement small-scale repairs. For renewals and upgrading, the PC coordinates with EDL offices in Halba and Beirut.

Problems

The sector of electricity in NBC AA suffers from the following problems:

- Shortage in capacity; due to the increased numbers of new comers, over-pressure is exerted on the existing network through new subscriptions and hooking. According to the PC, the increased supply in the number of meters in NBC AA has occurred sporadically without taking into consideration the capacity of the electric transformers.
- Lack of electricity connections to some units used for the displaced accommodation. UNRWA assumed the responsibility of providing and maintaining the running costs of electricity meters in the collective prefabricated shelters. However, other privately rented units that are currently used for residential uses (such as garages) are not equipped with electricity meters. While property owners refuse to pay for new meters, EDL has refuted its responsibility in this case. According to the PC, 500 meters of those donated by Hamas have not been approved by EDL to be installed yet.

Needs

The PC explained that there is a need to either increase the capacity of transformers or to change the connections so that the higher capacity transformers become connected to neighborhoods that incorporate larger numbers of meters. The PC has contacted EDL offices in Halba regarding this matter; the latter had referred them to EDL offices in Beirut. This issue has yet to be resolved. It should be mentioned that UNRWA has procured additional transformers to be installed in NBC AA. However, it was still waiting for the permission of EDL to install these transformers.

Road Networks

Current State

A road network that exists in NBC AA is comprised of primary and secondary streets that evolved from existing paths between the houses. Most of these roads are asphalted or paved with concrete with the exception of two roads that are prohibited from being paved or asphalted by Lebanese law. One of these roads covers an oil pipe and the other belongs to the railway company. Street lighting was established along the main roads but most streets lack storm water channels and sidewalks.

Implementation

UNRWA has rehabilitated and asphalted 23,000m² of roads in NBC AA after the end of the clashes with a 330,000 USD donation from ECHO. Another project was undertaken by MercyCorps to rehabilitate the internal road network. In addition, UNRWA and CISP have installed and rehabilitated parts of the storm water drainage systems in the AA.

The unpaved roads covering the oil-pipe and the railway in NBC AA

Prior to the NBC conflict, dwellers have covered parts of the roads in front of their houses with thin concrete layers. For paving the main streets, dwellers resorted to the PC, which requested financial contributions ranging from 1,000 to 2,000 USD from the PLO.

Repairs

UNRWA currently carries repair works to the road network in NBC AA, in addition to the project implemented by MercyCorps mentioned above.

Problems and Needs

Representatives of the local community expressed the need to further rehabilitate and pave roads in NBC AA. The PC stressed the need to implement water channels to reduce flooding of rain water, especially that rain water mixed with sewage flows from Muhammara to NBC AA. This water is generally mixed with butchers' wastes disposed on the roads by shops in Muhammara.

Priorities for Intervention

Intervention priorities in basic urban services in NBC AA were identified by representatives of the local community, in descending order of importance, as follows:

1. Developing sustainable solutions and strategies for BUS provision after the end of UNRWA Emergency Programme.
2. Increasing the capacity of the electricity network to correspond to the increase in population.
3. Upgrading the sewage network and installing water drainage systems along the roads to prevent flooding in winter.

Representatives of the local community also communicated the need to provide a slaughter house in Muhammara to prevent the flooding of waste disposed by butcher shops to the AA. In addition, many houses in NBC AA are in urgent need of reconstruction and rehabilitation, which cannot occur without a proper legal framework.

Representatives of the local community also stressed the urgent need to moderate security measures undertaken around NBC AA in order to promote the local economy.

Section III

Adjacent Area Surrounding Mieh Mieh Camp

1-Adjacent Area of Mieh Mieh Camp

An Adjacent Area (AA) was formed around Mieh Mieh Camp in South Lebanon, mainly around the northern and southern boundaries of the camp (see figure 17). This AA is divided into three main neighborhoods, "Hay el Kefah" and "Hay el Masrieh" in the north and "Hay el Wadi" in the south (see figure 18). These neighborhoods exhibit similar characteristics in their history of formation, their local organizational structure, the state of basic urban services and the mechanisms employed for accessing these services. For this reason, they will be considered as one AA in this research. The AA of Mieh Mieh Camp constitutes a geographic expansion of the camp with intertwined roads and a continuous built-up fabric. It is administratively located within the municipal boundaries of Mieh Mieh.

Relationship to Surrounding

Relationship to the Camp: The AA of Mieh Mieh Camp is regarded as an integral part of the camp in the perceptions of the local community as well as other local stakeholders. The local community considers the AA as a natural extension of the camp, which is informally governed by the same Popular Committee (PC). For their concerns and problems, dwellers in the AA resort directly to the members of the PC. Despite the fact that dwellers are not formally represented in the PC, the Committee governs the Mieh Mieh Camp and its AA as one entity. The camp has not been divided into sectors and therefore no Sector Committees or Neighborhood Committees exist. The (informal) ownerships of houses and the selling and buying of residential and commercial units in the AA of Mieh Mieh Camp are organized and documented by the PC.

The sewage and water networks in the AA are currently connected to those in the camp. UNRWA has included the AA in a WATSAN project that renewed the water and sewage networks in Mieh Mieh Camp. During the last decade, UNRWA has extended many basic urban services to cover the AA, due to repetitive requests from the PC. According to UNRWA Camp Service Officer (CSO) in Mieh Mieh, the AA is informally regarded by UNRWA staff in Mieh Mieh Camp as a 'de-facto' part of the camp. Dwellers of the AA use UNRWA schools and health care centers located in the camp. They also benefit from services provided by active NGOs mostly located in the camp.

Relationship to Surrounding Villages/ Towns: The AA of Mieh Mieh Camp is separated from its surrounding in Mieh Mieh village by a network of roads and a set of security measures implemented around the camp and the AA. Presently, the only access to the AA of Mieh Mieh Camp is through the main entrance of the camp itself, denoted by two checkpoints by the Lebanese Army Forces (LAF) and the PLO respectively. The AA is separated from its surrounding in Mieh Mieh by a barbed wire fence installed by the LAF for security purposes. This reflects the public perceptions of the AA as an integral part of the camp.

The sewage network in the AA of Mieh Mieh Camp is connected, through that in the camp, to the municipal network in Mieh Mieh (Hamshari) and Saida. Problems in basic urban services that take place particularly in Hay el Wadi (see figure 18), affect the adjacent area of Mieh Mieh, especially in relation to solid waste and sewage disposal as discussed later throughout this section.

Most dwellers work in the surrounding areas and towns as construction workers and taxi drivers. Some families send their children to UNRWA schools located in the neighboring Ain el Helwe Camp in Saida.

Figure 17: *Context and location of the AA surrounding Mieh Mieh Camp, South Lebanon*

Relationship with Other Stakeholders

Generally, dwellers in the AA informally communicate their needs and concerns to the PC in Mieh Mieh Camp, which plays a mediation role with other stakeholders. For improving dwellers' access to basic urban services in the camp and the AA, the PC employs its available relationships with other public and private stakeholders to facilitate the needed interventions. The PC in Mieh Mieh Camp mainly resorts to the PLO and the Palestinian political factions that are active in the camp for financial support. It also negotiates with UNRWA the problems and needs in the different BUS sectors and occasionally visits politicians who are active in Saida area for support.

The local community mobilizes itself to facilitate needed interventions in basic urban services in the AA, mainly through exerting pressure on the appropriate stakeholder. In one case for example, in order to exert pressure on UNRWA to carry out solid waste collection in the AA, dwellers collectively resorted to throwing their solid waste in the surrounding areas of Mieh Mieh in order to motivate the municipality to communicate with UNRWA and demand a solution. In another case, the discharge of sewage without disposal methods into the surrounding area of the village exerted pressure on the municipality to approve UNRWA sanitation project in the AA.

The PLO and Palestinian Political Factions: In case of large-scale interventions in basic urban services, the PC in Mieh Mieh Camp resorts to the PLO for financial assistance. The PC also resorts to the different political factions active in the camp for financial resources, especially the bigger ones such as Fateh and Hamas.

UNRWA: The PC employs its relationships with UNRWA CSO to negotiate problems and needs in the camp and the AA. The PC lobbied with dwellers to advocate the extension of UNRWA basic urban services and infrastructure projects to include the AA. In response, UNRWA extended its basic urban services and the most recent WATSAN project to the AA. According to interviewed dwellers, UNRWA usually responds to the PC requests in order to maintain good relationships and stability in the camp. Dwellers also resort individually to UNRWA CSO in the camp for urgent interventions mainly in cases of blocking in the sewage network and damages to the roads. The CSO contacts the regional office of UNRWA in order to allow for the inclusion of these dwellers in its services, especially the Self-Help Programme. Under this programme, UNRWA provides dwellers with the necessary plans to carry out paving and repair works and reimburses them after carrying on site inspections.

Political Figures in Saida Area: Coordinating its works with the PC in Ain el Helwe Camp, the PC in Mieh Mieh Camp uses its good relationships with prominent political figures in Saida, including the Mayor of Saida, to facilitate interventions in basic urban services. These politicians use their access to resources or their connections with public agencies to implement the needed interventions. Mostly, these interventions are related to repairs and renewals in the electricity network in Mieh Mieh Camp and the AA.

The Municipality of Mieh Mieh: The relationship between the local community and the PC on one hand and the Municipality of Mieh Mieh on the other suffers from lack of communication and coordination. The municipality provides no basic urban services in the AA and considers it to be part of the Mieh Mieh Camp. The Mayor of Mieh Mieh has indicated the lack of coordination with donor agencies and UNRWA when implementing infrastructure projects in Mieh Mieh Camp and the AA. This is especially problematic since infrastructure networks in the camp and the AA, mainly sewage, are ultimately connected to those in the village. The Mayor explained that the upgrading of infrastructure networks in the camp and the AA without coordination with the municipality exerts additional pressure on the municipal networks and causes problems. He called for a more comprehensive plan that includes the village and the municipality in these infrastructure projects.

The municipality explained its retreat from BUS provision in the AA of Mieh Mieh Camp by the current security situation and restricted access by the Army. In addition, the municipality shows concern that any approval of infrastructure and shelter projects might be regarded as a step towards prolonging the occupation of lands that belong to residents in Mieh Mieh.

1. Mieh Mieh Profile

Area: 2.3km²
Population (excluding camp and AAs): 10,000 total dwellers; 5,000 registered population.
Year of Establishment of Municipality: 1961

Geographic Location

Mieh Mieh is a village located in the Qadaa of Saida in South Lebanon. It is situated 5km east of Saida and extends over an area of 2.3km². Mieh Mieh is bounded by Ain el Delb from the east, Darb el Sim from the south, Saida-Dekerman from the west and Haret Saida to the north (see figure 17).

Demography

The total number of residents living in Mieh Mieh is estimated at 10,000, excluding those in the camps and AAs. According to the municipality, registered population do not account for more than 5,000, which represent 50 percent of the total residents. According to the Ministry of Interior and Municipalities, Mieh Mieh accounted for 4,426 registered voters in 2004 municipal elections in Lebanon. Palestinian dwellers in Mieh Mieh do not only live in the camp and the AAs; some Palestinian families live in owned or rented houses in Mieh Mieh village.

Local Authority

The Municipality of Mieh Mieh was established in 1961 and is a member of the Saida - el Zahrani Union of Municipalities. Its municipal council includes 12 members and a total of 5 committees: tender; receipt; procurement; environment; and public gardens.

The municipality provides basic urban services in all residential areas located within the village boundaries except in Mieh Mieh Camp and the AAs of Mieh Mieh and Ain el Helwe Camps. To carry out its services, the municipality hires a total of 14 employees, 9 of them are daily workers and five are administrative staff. The municipality does not own machinery for municipal services; instead it uses the machinery owned by the Union.

For financial resources, the municipality depends on its share from the IMF distributed by the central government and the communication taxes transferred from OGERO[5]. Other financial resources represent revenues that are locally raised through direct taxation. According to the municipality, residents are committed to paying municipal taxes only when they have to obtain legal documents from the municipality. The Palestinian community living in rented or owned houses in the village generally pays taxes.

5 OGERO (Organisme de Gestion et d'Exploitation de l'ex Radio Orient) is a public agency that was established in 1972 to manage and operate the telegraph and submarine telecommunications of Radio Orient (the early 1900's company). It is 100% owned by the government and acts under the supervision of the Minister of Telecommunication. OGERO's role today includes the operations, maintenance, sales, marketing, billing and management of the Ministry of Telecommunication fixed network in Lebanon (Source: www.ogero.gov.lb).

The AA of Mieh Mieh Camp separated by a wire fence from Mieh Mieh Village

Basic Urban Services in Mieh Mieh

Infrastructure networks in Mieh Mieh, mainly water and sewage networks, are generally in need of rehabilitation. The state of basic urban services in Mieh Mieh village is summarized as follows:

Water Provision: Water is provided through a public network originally implemented by the state in the 1960s and renewed in the 1980s. A water tank for the collection and storage of water was established by UNICEF, which was recently replaced by a new water tower built by the Council of the South. The main source of water is "Nabeh el Tasseh" that feeds around 90 percent of households in Mieh Mieh, in addition to a well that was established by the municipality in the 1970s. Although the water network in the village needs rehabilitation, the Water Authority in Saida explained that they have no funds for rehabilitation or carring out repairs.

Sewerage: The sewage network currently used in the village was implemented by residents themselves before the establishment of the municipality. Due to the high increase in the number of population, this network suffers from over-load and is in need of upgrading and rehabilitation.

Solid Waste Management: Solid waste collection and disposal is managed by a private company, the New Trading and Contracting Company (NTCC), commissioned by Saida - el Zahrani Union of Municipalities. The Union pays the company an annual sum of 2 million LBP (1,333 USD) for its services, which covers all households in the village.

Electricity: An almost complete electricity network was established by EDL in Mieh Mieh. EDL is responsible for all maintenance and repair works except for the street lighting, which fall under the responsibility of the municipality. An informal agreement is in operation between the municipality and EDL; the municipality does not pay consumption fees for street lighting and EDL does not pay the municipal share of electricity taxation collected by the agency.

Road Networks: A well-spread road network exists in Mieh Mieh village. The municipality implements asphalting works using its own municipal budget and obtains additional asphalt through the Ministry of Public Works. The roads condition is acceptable with some parts in need of rehabilitation.

Relevant Projects

Except for the municipality's interventions in plantation works and the establishment of a public garden, no major infrastructure projects are carried out for Mieh Mieh. A study is currently being prepared in CDR for the protection of "Nabeh el Tasseh" water source from pollution.

2. Mieh Mieh Camp Profile

Location: Mieh Mieh, South Lebanon
Year of Establishment: 1954
Estimated Population: 5,037

Access to the Camp

Access to Mieh Mieh Camp is currently controlled by a number of checkpoints. The Lebanese Army Forces (LAF) have established two checkpoints on the main roads leading to the camp. One checkpoint has also been established by the PLO at the main eastern entrance of the camp (see figure 18).

Local Authority

At the local level, a Popular Committee (PC) in Mieh Mieh Camp was established in the 1970s to represent the semi-official Palestinian Authority in the camp. Due to the small area of the camp, the PC has not divided it into sectors, therefore no Sector Committees exist.

UNRWA Services

UNRWA represents the main service provider in Mieh Mieh Camp. UNRWA manages the following basic urban services in the camp: sewerage; water provision; solid waste collection and disposal; and road networks. It also provides educational and health services through two elementary/preparatory schools and one health center, all located in the camp. UNRWA also operates a Social Safety Net Programme that benefits 533 individuals and a Disability Programme.

Active NGOs

One main local NGO, Al-Najdeh Al-Sha'bieh, is currently active in Mieh Mieh Camp. Its current programs involve the provision of technical courses for Palestinian youths.

Basic Urban Services in Mieh Mieh Camp

The state of basic urban services in Mieh Mieh Camp could be summarized as follows:

Water Provision: Water is provided to households in the camp from a well that was established by the PLO in 1970 in the camp. In 2005, UNRWA established a 120m³ water tower and a new water network. This network was funded by the European Commission Humanitarian Aid (ECHO) as part of a comprehensive water and sanitation (WATSAN) project in Mieh Mieh Camp, which included the AA of Mieh Mieh Camp. UNRWA connected the water network to 192 collective manifolds in the camp and the AA; each collective manifold provided water to a group of 10 houses. Connections from these manifolds to the houses were done by dwellers.

Sewerage: All houses are connected to the sewage network implemented by UNRWA in 2005 as part of the WATSAN project funded by ECHO. The sewage network ultimately connects to the municipal networks in Mieh Mieh and Saida, which discharge into the sea without treatment. UNRWA implemented the main sewage lines and manholes of the network. Connections from the main lines to houses were done by dwellers.

Solid Waste Management: This service is provided by UNRWA on a daily basis and covers all households in the camp. UNRWA workers sweep the roads and collect solid waste manually or using dumpers where the width of the roads permits. Solid waste is collected at UNRWA collection points in the camp and is eventually disposed in Saida Dump every other day.

Electricity: Electricity provided in Mieh Mieh Camp is managed by the PC. The main source of electricity is two transformers (600KVA each) installed by EDL in the camp (see figure 19). Dwellers do not pay monthly consumption bills to EDL.

Road Networks: The camp roads constitute main streets and narrow alleys paved with asphalt or concrete layers through the efforts of UNRWA, the PC and dwellers. UNRWA, through its Self-Help Programme, helped some dwellers pave alleys with concrete layers. Some streets in the camp were recently asphalted by UNRWA as part of the ECHO project.

A view from Mieh Mieh Camp

3. The AA: Profiling and Access to BUS

This section presents the profile and the detailed findings concerning dwellers' access to BUS in the AA of Mieh Mieh Camp.

Figure 18: *The Adjacent Area of Mieh Mieh Camp, South Lebanon*

AA of Mieh Mieh Camp

Adjacent Area Profile

Geographic Location

The AA of Mieh Mieh Camp is located around the northern and southern boundaries of the camp. These boundaries are blurred and interconnected as shown in figure 18. The AA, is divided into three main neighborhoods (Hay el Kefah, Hay el Masrieh and Hay el Wadi), and is surrounded by the residential areas of Mieh Mieh Village (see figure 18).

Land Ownership

Most of the land on which the AA of Mieh Mieh Camp is built belongs to individual owners, most of whom are from Mieh Mieh village. A law suit was undertaken by some owners of the land in Hay el Wadi in 2002 but was postponed due to political interference, as explained by interviewed dwellers. PU & NRC (2009) reports the existence of occupied municipal land in the AA.

Demography

According to PU & NRC (2009), the total number of Palestinian households in the AA is 109 and the total population is 398, most of them are registered with UNRWA and the Lebanese authorities. The number of households is however said to range from 130 to 140 (689 to 742 dwellers) by the PC. According to DRC (2005), one Lebanese family lives in the AA of Mieh Mieh Camp.

Living Environment

The AA of Mieh Mieh Camp consists of single-story and some two-story units distributed along narrow alleys and stairways. Most houses are built with concrete and 30 percent of the houses have corrugated iron (zinco) roofs (PU & NRC, 2009). During the field observations in Hay el Wadi, the largest neighborhood of the AA, it was noted that the living environment is worse than that in the camp in terms of shelter and road conditions. According to the PU/NRC assessment (2009), some of the shelters in the AA are in a deplorable state and threatening to collapse. Roads in this area consist of mostly unpaved streets and narrow alleys. Stairways also exist due to the considerable slope of land. On the other side, Hay el Kefah and Hay el Masrieh to the north of the camp exhibit more similar conditions to those in the camp.

History and Growth

The AA of Mieh Mieh Camp started to appear when part of the original Mieh Mieh Camp was burnt during the Israeli invasion of 1982. Consequently, some households built alternative shelters around the extensions of the remaining camp. The AA was mainly established during the Lebanese civil war in 1985, when Palestinian families left other camps in Lebanon in search of safer areas. Most of these families have originally been displaced from destroyed camps such as Tal el Zaatar and Nabateyeh camps. Displaced families built temporary shelters in the AA with the hope of returning to their original camps. However, the AA of Mieh Mieh Camp kept on growing until the end of the civil war, when other families relocated from Mieh Mieh village in 1991 to the AA.

General scenes from Hay el Wadi in Mieh Mieh AA

Local Governance of Basic Urban Services

Local Organizational Structure

There exists no formal organizational structure in the AA of Mieh Mieh Camp. The AA is informally considered by the PC as part of the camp. Dwellers usually discuss their problems and needs, including these related to basic urban services, with well-respected dwellers, who convey these issues to the PC in an informal way.

Financial Resources

The AA of Mieh Mieh Camp does not have a local fund separate from that of the camp. The PC collects monthly contributions of 3,000 LBP (2 USD) from each household in the camp and the AA. Money is mainly used for the operation and repair of the electricity network and for paying workers' compensations.

In addition, dwellers in the AA financially contribute to the PC for implementing new BUS, such as in the case of the electricity network in the AA. In case of large-scale interventions, the PC resorts to the PLO or other political factions in the camp for complementary contributions.

Figure 19: *Location and key BUS in the AA surrounding Mieh Mieh Camp*

Basic Urban Services

Water Provision

Water Source

Water is provided to households in the AA of Mieh Mieh Camp from a well that was established by the PLO in 1970 in the camp. This well constitutes the main water source in the camp as well. In 2005, UNRWA established a 120m^3 water tower (see figure 19) and a new network that connected to 192 collective manifolds in the camp and the AA. Each manifold provides water to a group of 10 houses. This network was funded by the European Commission Humanitarian Aid (ECHO) as part of a comprehensive water and sanitation project. Dwellers continued works to install connections from the collective manifolds to their houses.

Network Implementation

According to the PC, the initial project was not designed to include the AA of Mieh Mieh Camp within its scope. UNRWA informed the PC of the project; the latter waited till works began to negotiate the extension of the project to the AA. The PC lobbied dwellers and Palestinian political factions to forward their requests to UNRWA as well as to the contractors on site. UNRWA agreed with the contractor to include the AA in the project, in terms of water and sanitation. In 2008, UNRWA repaired the water tower in the camp. Before, pumping used to take place from the well directly to the network.

Dwellers purchased 1/2" plastic pipes and connected their houses to the collective manifolds, using their technical skills, and installed 1m^3 private tanks on the roofs of their houses. Most tanks are made of plastic and fewer are made of iron. In addition, few households depend on building concrete 'lakes' at the ground level for water collection.

Before the implementation of this network, dwellers in the AA used to individually connect their houses to UNRWA previous network in the camp.

Operation

Currently, UNRWA operates the water station in the camp and network in the AA of Mieh Mieh Camp. The management of the water provision was passed from the PC to UNRWA in 1978, before the formation of the AA. UNRWA operates the water station for 14 hours a day and distributes water alternately from the water tower to the different neighborhoods in the camp and the AA. UNRWA covers all operational and maintenance costs.

Repairs

UNRWA carries out repairs to the water network, the well, the pumping station and the water tower; the latter repaired in 2008. Dwellers in the AA do not pay for this service. In case of damages to house connections (pipes from the collective manifolds to houses) dwellers implement individual repairs at their own expenses.

Quantity of Water

According to representatives of the local community, water is generally sufficient in the AA of Mieh Mieh Camp. UNRWA CSO explained that around 400m^3 is daily pumped to the houses in the camp and the AA. Water provision experiences some shortage in the summer months, due to the increased consumption of water. Households are provided with water four hours a day, which is sufficient to fill their private tanks. Some households have two tanks; they use private pumps to drive water from the tanks at the ground level to the tanks installed on roofs. Almost all households installed float valves in their tanks to prevent water over-flow.

Collective water manifold installed by UNRWA as part of a WATSAN project extended to Mieh Mieh AA

Quality of Water

Water in the AA of Mieh Mieh Camp is generally used for drinking, cooking and services. UNRWA carries monthly water tests and regular chlorination of water. However, dwellers complain of the hardness of water due to the calcareous nature of the ground and chlorination, which affects its taste. They associate this to health problems, such as kidney diseases and inflammations, especially if used by children. Dwellers who can afford to purchase potable water buy water gallons with a total cost of around 40,000 LBP (26.7 USD) per month, as indicated by interviewed dwellers. According to the water analysis test carried by PU/NRC for water in the AA, water did not show any contamination (PU & NRC, 2009).

Main Problems

Representatives of the local community generally expressed their satisfaction with water provision in the AA of Mieh Mieh Camp. However, UNRWA CSO explained the following problems:

- Delay in the distribution of water to all areas due to the repetitive cut-offs and unstable electricity current.
- Shortage in pumping due to the fact that pipes that pump water from the well to the water tower are smaller in width to those that distribute water to the manifolds (6" compared to 4" diameter). As a result, more time is spent pumping water from the well to the water tower than distributing water.

Needs

According to UNRWA CSO, to overcome the insufficient electricity supply for operating the water pump, there is a need to either establish another water station or to provide an additional electricity transformer for water provision.

Sewerage

Method and Implementation

All houses in the AA are connected to the sewage network implemented by UNRWA in 2005 as part of the WATSAN project funded by ECHO. The sewage network ultimately connects to the municipal networks in the surrounding Mieh Mieh and Saida areas, which discharge in the sea without treatment.

The Mayor of Mieh Mieh explained that projects in the camp and the AA are usually undertaken without coordination with the municipality and impacts municipal networks. For this reason, the municipality has primarily objected to implementing the sewage project in the AA of Mieh Mieh Camp. According to local informants, the municipality finally agreed when sewage from Hay el Wadi was discharged to the surrounding areas of Mieh Mieh, in the absence of a sewerage system. The sewage problem was initially caused by the destruction of some sewage connections in the neighborhood when the Lebanese Army Forces installed the wire fence around the area.

UNRWA implemented the main sewage lines and manholes in the camp and the AA. Connections from the main lines to houses in the AA were done individually by dwellers. Some of the house connections in Hay el Kefah are exposed.

Operation and Maintenance

UNRWA occasionally extends maintenance works to the AA of Mieh Mieh Camp. In case of network blocking, dwellers resort to UNRWA, which responds when workers are not busy in the camp. Otherwise, the PC in the camp sends its workers to manually open blocked sewage pipes.

Repairs

UNRWA carries out major repairs to the sewage network. UNRWA CSO explained that repairs are done quickly and sometimes inadequately in the AA since the law prohibits UNRWA from working in illegal areas. Dwellers take the responsibility for repairing house connections at their own expense.

Broken sewage pipes in Mieh Mieh AA

Problems

The main problems of sewerage in the AA of Mieh Mieh Camp could be summarized by:

- Repetitive flooding; according to representatives of the local community in Hay el Wadi, this problem is caused by the faulty alignment of manholes with respect to the natural slope of the area and undersized pipes. During the implementation of the sewage project, dwellers objected to the small diameter of pipes to UNRWA.
- Exposed house connections in Hay el Kefah, which cause hygiene problems.

Needs

Representatives of the local community expressed the need to upgrade the sewage network through upsizing the pipes and adjusting the manholes to suit the slope of the land. The sewage network in Hay el Wadi is also in need of rehabilitation. Interviewed dwellers mentioned the need for an institution that would carry regular maintenance to the sewage network in the AA of Mieh Mieh Camp.

Solid Waste Management

Applied Method

UNRWA currently carries the responsibility of solid waste management in the AA of Mieh Mieh Camp free of charge. This service was provided in 2004 due to repetitive requests from the PC. According to UNRWA Sanitation Foreman in Mieh Mieh Camp, UNRWA agreed to extend this service since the AA was small in area. According to representatives of the local community, this was made possible through pressure from the Mieh Mieh Municipality when dwellers resorted to disposing garbage in the surrounding areas of the village.

In 2008, UNRWA placed covered plastic containers in the AA through requests from the PC. Before that, most dwellers carried their garbage bags to the main streets or to UNRWA collection point in the camp. Workers sweep the roads in the AA and collect solid waste manually or using dumpers, once a day. Solid waste is collected in UNRWA collection point in the camp to be later disposed in Saida Dump every two days.

UNRWA dumper collecting solid waste in Mieh Mieh AA

Problems

According to representatives of the local community, the main problems in this sector are:

- Insufficient number and capacity of solid waste containers;
- Suspension of the service on Sundays and during holidays. It should be mentioned that UNRWA CSO explained that UNRWA resumes its works in this sector daily;
- Lack of regular cleaning and disinfection of solid waste containers;
- Lack of awareness campaigns targeting the local community, mainly to guide dwellers through the correct times and locations for disposing their garbage bags.

Needs

Interviewed dwellers suggested an increase in the number and capacity of solid waste containers and more periodic emptying and cleaning of available containers. They also expressed the need to increase the number of workers in this service to adequately serve the population in the camp and the AA.

UNRWA CSO expressed the need to rehabilitate the collection point. This is currently addressed by increasing the height of the walls around the collection point. In addition, representatives of the local community and UNRWA expressed the need to design awareness campaigns that guide dwellers through the correct times and locations for disposing their garbage bags.

Electricity

Source

Electricity is provided in the AA of Mieh Mieh Camp through the camp network managed by the PC. The main source of electricity is two transformers (600KVA each) installed by EDL in the camp (see figure 19). The cost of purchasing the transformers was shared by the PC and dwellers in the camp. The PC built the stations for these transformers and UNRWA helped in rehabilitating one of them. According to the PC, around 25 percent of households in the AA are still not connected to this organized network; instead they informally hook to it.

Electricity is provided every other six hours, as per EDL system of regular cut-offs in the surrounding area of Saida. As a result, some dwellers subscribe to private generators' services, which provides 5 amperes a month in exchange of 50,000 LBP (33.3 USD). Not all dwellers in the AA are able to afford this private service.

Network Implementation

Before the implementation of the current network, dwellers used to informally hook to the camp network, which caused damages and repetitive cut-offs. In 2007, the PC initiated a project to organize electricity consumption in the AA of Mieh Mieh Camp. It started by collecting 10,000 LBP (6.7 USD) from each household to purchase electric distribution boards and install them in the AA. The PC hired a technician to connect these boards to the camp transformers and to distribute 16 amperes connection to each household.

In most of the AA, the PC was unable to afford to replace the house connections with new shielded cables to prevent hooking and increase safety measures. These cables were replaced through the collective initiative of dwellers in each neighborhood. Dwellers covered the costs of purchasing electric cables and hiring a technician to do the work through paying 15,000 LPB (10 USD) per month from each household over a period of three months.

Operation and Cost Recovery

The PC in Mieh Mieh Camp carries out maintenance works to the electricity network through appointing five workers from the camp. The PC uses money from the local fund to pay workers 'rewards' or small compensations that do not exceed 50,000 LBP (33.3 USD) per month. It should be noted that the PC also uses this money to pay another worker for carrying out plantation works. Dwellers do not pay monthly bills to EDL.

Repairs

The PC conducts repairs to the electricity network using money from the local fund. In case of larger-scale repairs, the PC collects additional contributions from households and resorts to the PLO for complementary funding. When damages occur in the high voltage (HV) line, the PC contacts EDL for repairs since the HV line supplies electricity to the surrounding villages. It is not uncommon for dwellers to pay EDL technicians for carrying repair works to the electricity network in the camp and the AA.

Recently, UNRWA helped the PC to rebuild one station in the camp after the roof had collapsed. UNRWA agreed to cover the required costs since it uses electricity from this station for operating the water station in the camp.

Basic methods for retaining loose and unshielded electricity cables in Hay el Wadi, Mieh Mieh AA

Problems

Problems in the electricity sector in the AA of Mieh Mieh Camp could be summarized by:

- Insufficient transformer capacity to provide electricity to all houses in the camp and the AA.
- Over-load on the transformers: one transformer suffers from over-loading since it is used to provide electricity to the water station managed by UNRWA in the camp. This causes regular damages and cut-offs. As a result, dwellers temporarily hook to the network connected to the other transformer, therefore exerting over-pressure on the latter as well.
- The availability of a high voltage (HV) line, which constitutes a public health concern in the camp and the AA. This HV line also suffers from continuous damages.

Needs

Representatives of the local community expressed the need to increase the capacity of the transformers or to secure another transformer for operating the water station.

In an attempt to address this need, the PC has purchased a generator to provide additional electricity in the camp and the AA. However, they were prohibited from bringing the generator into the camp (or the AA) by the Army security procedures. Although the PC resorted to political figures in the region, it could not counter the decision. In addition, around thirty houses in the AA need to be connected to this organized network.

Electric distribution board installed by the Camp PC to organize electricity provision in Mieh Mieh AA

Road Networks

Current State

The road network in the AA of Mieh Mieh Camp consists of some main streets and narrow alleys and stairways. Most streets and alleys are paved with concrete layers. However, the road network suffers from poor maintenance and is in need of rehabilitation. With the exception of the main street in Hay el Kefah, generally no storm water channels or street lighting is available. The PC has started an intervention for installing a few street lights in the AA, which needs to be further supported to continue.

Implementation

UNRWA has generally paved the roads in the AA of Mieh Mieh Camp with concrete, since it is not entitled to asphalt these roads by law. The main street in Hay el Kefah and Hay el Masrieh were asphalted by UNRWA as part of the ECHO project and through requests from the PC.

Repairs

For repairs, dwellers prepare a concrete mix and cover the parts that are in front of their houses. Representatives of the local community explain that although they resort to UNRWA to carry out some

Most roads are paved with cement in Mieh Mieh AA

repairs, UNRWA cannot provide such services outside the official boundaries of the camp.

According to UNRWA CSO, UNRWA sometimes includes dwellers in the AA in its Self-Help Programme. Dwellers implement the repairs under UNRWA guidance and present the costs to UNRWA for reimbursement.

Problems and Needs

Representatives of the local community stress the need to rehabilitate and asphalt all roads in the AA. In addition, there is a need to install storm water drainage system in all roads. Due to the absence of storm water channels, rain water that floods on the roads creates mud-like pools. This problem especially occur in the main street in Hay el Wadi, which is in very bad condition and in need of repair and paving (the road is approximately 350m in length). The corrosion of land in winter usually blocks this street and inflects damages on surrounding houses and retaining walls. According to representatives of the dwellers in Hay el Wadi, no school buses, ambulances or cars are able to access the neighborhood.

Priorities for Intervention

Intervention priorities in basic urban services in the AA of Mieh Mieh Camp were identified by representatives of the local community, starting with the most important, as follows:

1. Repairing and paving the main road in Hay el Wadi of the AA and establishing retaining walls.
2. Upgrading the sewage network in the AA mainly through replacing the manholes to suit the slope direction of the land and replacing the existing pipes with larger ones.
3. Implementing storm water channels to prevent water floods in the AA.
4. Increasing the capacity of the electricity network through installing an additional transformer, connecting all houses to the network and relocating or at least shielding the high voltage line.

It is worth mentioning that representatives of the local community stressed the urgent need for rehabilitating a number of houses in the AA. Dwellers have been prohibited from repairing and rehabilitating their houses.

Representatives of the PC in Mieh Mieh Camp have also expressed the need to mitigate security measures and remove the wire fence installed around the camp and the AA.

The main road in Hay el Wadi in Mieh Mieh AA

Section IV

Adjacent Areas Surrounding Ain el Helwe Camp

1- Baraksat
2- Bustan el Kods and Ouzo
3- Bustan abou Jamil
4- Fadlo Wakim
5- Hay el Sohoun
6- Jabal el Halib
7- Sekke
8- Tawari

There are eight Adjacent Areas directly surrounding Ain el Helwe Camp in Saida, South Lebanon. These AAs are administratively located within the Municipal boundaries of Saida (Bustan el Kods and Ouzo, Bustan Abou Jamil, Fadlo Wakim, Sekke, Tawari and part of Baraksat), Darb el Sim (Jabal el Halib and Hay el Sohoun) and Mieh Mieh (Baraksat), as shown in figure 20. Some of the AAs, such as Bustan Abou Jamil, Fadlo Wakim and Hay el Sohoun, are geographically intertwined within the camp fabric. The other AAs constitute spatially defined gatherings that are locally considered sections of the camp (see figure 21). These AAs are generally inhabited by Palestinian families who were displaced from other Palestinian refugee camps in Lebanon during the civil war. These families relocated to the areas distributed around Ain el Helwe Camp, which were considered relatively secure due to the strong presence of the PLO represented by the Popular Committee in the camp. Displaced families purchased or occupied existing houses that were inhabited by other Palestinian or Lebanese families or built their own houses. Other families, mainly Lebanese, Syrian and Gypsies, though much less in numbers, live in some of these AAs.

Relationship to Surrounding

Relationship to the Camp: The local communities in Ain el Helwe Camp and its Adjacent Areas perceive the AAs to be parts of the camp. At the local administrative level, most of the AAs constitute individual sectors of the camp, except for the AAs of Hay el Sohoun and Fadlo Wakim which are included as parts of the Second and the Fifth Sectors of the camp, respectively. It should be mentioned that two Popular Committees exist in Ain el Helwe Camp. The PC affiliated to the PLO was established earlier than that affiliated to Tahaluf, the latter including Islamic factions as well. For the sake of this report, PC is used to refer to the PC affiliated to the PLO, since it performs most of the responsibilities related to BUS in the camp and the AAs. The AAs are internally governed by local committees that are structured as follows:

- Hay el Sohoun and Fadlo Wakim are governed by the Sector Committees (SCs) of sectors 2 & 5 the camp, under the structure of the PLO affiliated PC in the camp. A Neighborhood Committee (NC) also exists in Hay el Sohoun and coordinates its works with the camp PC.
- Bustan el Kods and Sekke have their own Sector Committees (SCs) which are formally represented in the PC affiliated to PLO in the camp;
- Baraksat and Jabal el Halib have separate Popular Committees (PCs) that coordinate their works with the PLO affiliated PC in the camp.
- Tawari has a separate Popular Committee (PC) led by Islamic factions that are represented in the PC affiliated to *Tahaluf* in the camp.
- Bustan abou Jamil is in the process of forming its own committee, it is partially governed by the local committee in the neighboring Arab el Ghweir area of the camp.

Basic urban services in the AAs are strongly interlinked with those in the camp. Water is provided in most AAs from wells located in the camp and managed by the PC. Sewage networks in the AAs are informally connected to those in the camp. Electricity in the AAs is generally organized and managed by the SCs under the wider structure of the PC in the camp. The informal connection of infrastructure networks in the AAs to Ain el Helwe Camp impacts the state of BUS and sources in the latter. It should be mentioned that although these networks are strongly interrelated, no comprehensive schemes are developed that address common service provision and problems in the camp and the AAs.

Dwellers in the AAs use UNRWA schools and health care centers located in the camp. They also benefit from services provided by local NGOs mostly within the camp. AAs that are closer to the camp benefit from the informal extension of some UNRWA services such as solid waste collection and the unblocking of congested sewage networks and manholes.

Relationship to Surrounding Villages/ Towns: In general, AAs surrounding Ain el Helwe Camp are separated by main or secondary roads from the surrounding areas in Saida, Darb el Sim and Mieh Mieh(see figure 21). The AAs of Sekke and Bustan Abou Jamil are separated by an old railway from empty/ agricultural lands in Saida. The AAs of Jabal el Halib and Hay el Sohoun are separated from their surrounding areas in Darb el Sim by fences that were installed by the Lebanese Army Forces (LAF) as security measures.

In 2005, after the conflicts between the LAF and groups based in Ain el Helwe Camp and Tawari, the Army established two checkpoints to control access to the camp; one at the entrance to Tawari and Sekke and another at the entrance to Baraksat entrance. Access to Ain el Helwe camp and the AAs is restricted by passing through these checkpoints as well as two checkpoints set by the Palestinian political factions.
Some basic urban services in the AAs are linked to those in the surrounding villages and towns. Sewage networks in the AAs, including those hooked to the camp, ultimately connect to municipal sewage networks. Water provided to some households in Baraksat and Bustan el Kods is informally derived from the water station currently under the operation of the Water Authorities in Saida.

Dwellers in the AAs work in the surrounding villages and towns, mainly in Saida, mostly as construction workers or taxi drivers.

Figure 20: *Context and location of the AAs surrounding Ain el Helwe Camp, South Lebanon*

Relationship with Other Stakeholders

Dwellers in the AAs surrounding Ain el Helwe Camp generally discuss their needs and concerns informally with members of the local committees. Depending on their connections, local committees directly resort to other stakeholders such as the PLO, political figures in Saida or relevant municipalities, or coordinate with the PCs in Ain el Helwe Camp for this purpose. These stakeholders offer financial or logistical support to facilitate interventions for improving dwellers' access to basic urban services in the AAs. The local community's relationship to UNRWA is a more direct one, in which dwellers or local committees communicate their issues and submit requests to UNRWA Camp Service Officer (CSO) in the camp. The camp PCs are kept informed of these initiatives by the local committees as well as by UNRWA, since they represent the semi-official Palestinian authority in the camp.

Another layer of relationships was recently added in 2008 and 2009 when Premiere Urgence (PU) started implementing its projects in the AAs of Sekke, Bustan el Kods and Baraksat. PU has initiated the rehabilitation of some shelters and water and sewage networks in these AAs. PU coordinated with the relevant municipalities, mainly the Municipality of Saida, to obtain public permits and approvals from the private land owners. During implementation, the popular and local committees in the camp and the AAs communicate with PU staff to voice their needs and concerns related to implemented projects.

PLO and Palestinian Political Factions: Local Committees in the AAs resort to the PLO mainly for financial support, either directly or through the PC in Ain el Helwe Camp. The PLO responds positively, mainly for organizing the sector of electricity, within the limitations of its financial resources. Costs of electricity transformers and main networks installed by the local committees in the AAs are usually shared by dwellers and the PLO. In some cases, the local committees resort to the different political factions active in the camp, especially the bigger ones such as Fateh, Hamas and the Popular Front for the Liberation of Palestine – General Command, mainly for water provision. These factions usually intervene by donating money or contributing to the works to dig new wells. According to local informants, sometimes strong internal conflicts between the different political factions in Ain el Helwe Camp and the AAs lead to the failure of local initiatives designed for improving access to BUS. For example, the PLO has recently initiated an intervention in Baraksat for organizing, maintaining and repairing sewage networks through the allocation of a separate budget. However, this project lasted only for few months because members of the local community administrating this project disagreed over the management of the budget.

UNRWA: The relationship of the local communities to UNRWA takes more of a direct form. Dwellers and local committees in the AAs resort to UNRWA CSO in the camp to request daily BUS needs, such as sending workers to unblock congested sewage pipes or manholes. In addition, according to UNRWA CSO, UNRWA has included some dwellers in the AAs within its Self-Help Programme for rehabilitating and paving roads. More formal requests, such as those related to solid waste collection, are done through letters signed by dwellers and presented to UNRWA by the local committees in the AAs. The PCs in the camp back these requests through discussions and negotiations with UNRWA CSO. The CSO in Ain el Helwe Camp explains that UNRWA office informally extends some services only to the AAs that are close to the camp, since it is more feasible and time efficient. A process of negotiation usually leads to reaching a compromised solution for both dwellers and UNRWA. In the case of solid waste management for example, UNRWA sometimes provide partial services; i.e. it sends its workers to collect wastes only from the external roads of the AAs. According to interviewed dwellers, UNRWA usually responds to the PC requests in order to maintain good relationships and stability in the camp.

Political Figures in Saida Area: The two PCs in Ain el Helwe Camp as well as the more connected local committees in the AAs enjoy good relationships with the prominent political figures and leaders in Saida. These leaders use their power and connections to facilitate projects and interventions in Ain el Helwe Camp and the AAs, including those related to basic urban services. For example, political figures of a major party in Saida provide support for the installation of electricity transformers and main electricity networks in some AAs through employing their connections with EDL. Consequently, EDL sends its workers, who informally perform paid tasks in the AAs as a 'favor' to the political leaders.

Relevant Municipalities: The relationship of the local communities to the municipalities accommodating the AAs vary from one municipality to the other. The camp PCs and the local committees in the AAs enjoy good beneficial relationships with the Municipality of Saida, in which the camp and most of its AAs are located. According to the Mayor, the municipality usually conducts monthly meetings with representatives of the PCs in Ain el Helwe Camp and UNRWA officials (separately) to discuss major issues regarding Palestinian refugees in Saida area and Ain el

Helwe Camp. The Municipality of Saida offers help and support in obtaining permits from the original land owners to facilitate PU projects in AAs. To assure the land owners, the municipality conducts some meetings with the PCs in the camp to reinforce the fact that such interventions do not 'legalize' occupation in the AAs or grant dwellers a 'permanent' status. The Mayor of Saida explains that the municipality does not differentiate between Palestinian and Lebanese residents, however, the provision of municipal basic urban services in camps and AAs is restricted by law. Recently, the Municipality of Saida has been covering the salaries of two workers appointed by the PC in the AA of Sekke to carry general maintenance works.

The relationship of the local communities to the municipalities of Darb el Sim and Mieh Mieh are characterized by lack of communication and cooperation. In some cases, these relationships are mediated through the Municipality of Saida, since it enjoys better relationships with the local Palestinian communities. Mayors of the municipalities of Darb el Sim and Mieh Mieh explain that it is complicated to approve shelter and infrastructure projects in the AAs located within their municipal boundaries, since the land belongs to private owners from the two villages. These owners were displaced from Darb el Sim and Mieh Mieh during the civil war and had lost their lands. According to the Mayors, these families are reluctant to accept any intervention that would make the current occupation of their lands 'permanent'.

According to the Mayor of Darb el Sim, the decision-making and implementation of shelter and infrastructure projects in the AAs take place in isolation from the relevant municipalities and land owners and disregard the impact of such projects on municipal networks. This led Darb el Sim Municipality to initially object to the implementation of the PU sewage project in Jabal el Halib AA. The local community in the AA collectively reacted by stopping the municipality's works for connecting nearby houses in Darb el Sim to the sewage network. The Mayor of Darb el Sim delegated negotiations with the local community to the Mayor of Saida, who resolved the problem in exchange of promising to facilitate the PU project in Jabal el Halib.

The municipalities explain their limited interventions in basic urban services in the AAs surrounding Ain el Helwe Camp by the security measures undertaken by the Lebanese Army Forces (LAF). In order to carry out any interventions, municipalities need special permission from the Lebanese Intelligence. In one case, the admission of workers from Mieh Mieh Municipality to Baraksat, in order to unblock congested sewage pipes, was successfully negotiated with the LAF only after the PC in the camp assumed full responsibility for the safety of workers and machinery.

1. Saida Profile

Area: 7.86km²
Population (excluding camp and AAs): 125,000 total dwellers; 100,000 registered population
Year of Establishment of Municipality: 1876

Geographic Location

Saida is a city located in the *Qadaa* of Saida, South Lebanon, 45km south of Beirut. Composed of three main sectors: Saida, Saida Wastani and Saida Dekerman, it extends over an area of 7.86km². It is bounded by Darb el Sim, Mieh Mieh, Bramieh, Hlaliyeh, Haret Saida and Bqosta from the east, Ghaziyeh from the south, Rmeyleh from the north and the Mediterranean Sea form the west (see figure 20).

Demography

The total population in Saida is estimated by the Municipality of Saida at around 125,000, while the total number of registered population is estimated at 100,000. These numbers exclude Palestinian dwellers in the camp and the AAs. According to the Ministry of Interior and Municipalities, Saida accounted for 89,152 registered voters in the municipal elections of 2004. Palestinian families also live in the formal residential areas of Saida.

Local Authority

The Municipality of Saida was established in 1876 and heads the Saida - el Zahrani Union of Municipalities. Its municipal council includes 21 members and a total of 12 committees. These committees are: procurement, works and planning, social, health, health and environment,

administration, legal, treasury, receipt, tender, properties price estimation and old Saida.

The Municipality of Saida provides basic urban services within its municipal boundaries except in Ain el Helwe Camp and the AAs. It also extends BUS to the informal settlement of Taamir (see figure 21) and the close parts of the AA of Sekke. To carry out its works, the municipality have a repair team of 15 workers and uses its own machineries as well as those under the disposal of the Union.

For financial resources, the municipality depends on its share transferred by the central government through the Independent Municipal Fund (IMF). Other financial resources are the revenues raised locally through direct taxation. Financial, technical and human resources available at the Municipality of Saida are considered high compared to the other municipalities accommodating for AAs.

Basic Urban Services in Saida

The state of basic urban services in Saida could be summarized as follows:

Water Provision: Water is provided through the urban network implemented by the Water Authority (WA) of Saida, which supplies the city with water from 'Nabeh Kferweh'.

Sewerage: A sewage network currently covers the entire city and is disposed without treatment in the sea. The Saida Coastal Area Wastewater Project is in its final phase; the project is implemented by CDR and funded by the Japanese Bank for International Cooperation (JBIC) for the sum of 19,701,407 USD. The project includes the extension of the sewage network in Saida area and the surrounding communities to the wastewater collection system and treatment plant constructed in Saida on the sea shore.

Solid Waste Management: Solid waste collection and disposal is managed by a private company, the New Trading and Contracting Company (NTCC), commissioned by the Saida - el Zahrani Union of Municipalities. Solid waste collection in the informal Taamir settlement is carried by the municipality. Sweeping the roads is done in all neighborhoods in Saida except in the Taamir informal settlement. Final dumping of waste takes place in Saida dump through burying.

Electricity: A complete electricity network with transformers was established by EDL in Saida. Electricity is provided from the Jiyeh power plant. The municipality maintains the street lighting network inside Saida through a technical team that carries out all the necessary maintenance and repair works.

Road Networks: A well spread and lit main road network exists in Saida today, which is subjected to internal annual maintenance. The major international highway in Saida, which connects Beirut to the South, was recently rehabilitated. The municipality is implementing a project for maintaining and repairing the road network in Saida, at a total cost of 1,100,000,000 LBP (733,333 USD). In addition, the construction of the South Autoroute - Saida Coastal Boulevard is ongoing and Phase 5 is expected to be finished by May 2010.

Relevant Projects

A study is being prepared by CDR to implement a 'New Infrastructure Network for Saida and its Surrounding,' with a total cost of 15,000,000 USD. Another study is being prepared by CDR for the construction of a high voltage transformer station (220KV) in Saida with a total cost of 23,000,000 USD.

A view to Saida from the AA of Sikkeh surrounding Ain el Helwe Camp

2. Darb el Sim Profile

Area: 4km²
Population (excluding camp and AAs): 6,000 total dwellers; 5,000 registered population
Year of Establishment of Municipality: 1963

Geographic Location

Darb el Sim is a village located in the Qadaa of Saida, 6km east of Saida in South Lebanon. It extends over an area of 4km². It is bounded by Zegehdraya from the east, Maghdouche from the south, Saida-Dekerman and Ghaziyeh from the west and Mieh Mieh form the north (see figure 20).

Demography

According to the municipality, the total number of residents in Darb el Sim is estimated to be 6,000, of whom 5,000 are registered population. This number does not include Palestinian refugees living in the AAs of Jabal el Halib and Hay el Sohoun. According to the Ministry of Interior and Municipalities, Darb el Sim accounted for 3,746 registered voters in the 2004 municipal elections.

Local Authority

The Municipality of Darb el Sim was established in 1963 and is a member of Saida - el Zahrani Union of Municipalities. Its municipal council includes 12 members and a total of 6 committees that cover: receipt and procurement, sports, arts, culture, environment and works.

The Municipality of Darb el Sim provides services in all residential areas located within its boundaries except the AAs. According to the municipality, it intervenes in these AAs only in urgent cases and after obtaining authorization from the Lebanese Army Forces. It refers to the current security situation and procedures as the main obstacle for any intervention. Service delivery in Darb el Sim faces many challenges due to the lack of financial, human and technical resources. The main problems facing the municipality exist in the Syrub area where a Palestinian extension has recently developed.

To implement its services, the municipality hires a total of 11 employees, 6 of them are daily workers and 5 administrative staff. The municipality owns 1 pick-up truck and 1 mini-van for transporting tools used for maintenance and uses the Municipal Union machineries when needed.

For financial resources, the municipality depends on its share from the IMF and the communication taxes transferred from OGERO. Other financial resources are the revenues locally raised through direct taxation. According to the municipality, it only collects taxes from financially capable residents. Some Palestinian residents living in Syrub area also pay taxes for the municipality.

Basic Urban Services in Darb el Sim

Infrastructure networks in Darb el Sim are generally in need of rehabilitation. The state of basic urban services could be summarized as follows:

Water Provision: Water is provided through an old urban network implemented by the Water Authority in the 1980s and fed from one well in the area. In general, the network is connected to all houses; however, it is in a bad condition and in need of rehabilitation.

Sewerage: Previously, dwellers in Darb el Sim used to depend on septic tanks for sewage disposal. In 2002, ECHO funded the implementation of a main sewage network in Darb el Sim, which covered 60 percent of the village. While financially capable residents were able to connect their houses to this network, the others still use septic tanks.

Solid Waste Management: Solid waste collection is commissioned to the private company NTCC by Saida - el Zahrani Union of Municipalities. According to the municipality, the service is not delivered in an efficient way, since dwellers do not always abide by the designated times for solid waste collection, which compels the municipality to interfere in this service.

Electricity: A complete electricity network with transformers was established by EDL in Darb el Sim. The state of this network is considered acceptable.

Road Networks: A well-spread asphalted road network exists in the residential areas of Darb el Sim. The roads that cover the agricultural areas are in bad shape and the municipality has not been able to intervene due to its limited financial resource

Relevant Projects

No infrastructure projects are identified for Darb el Sim.

3. Mieh Mieh Profile

Refer to Mieh Mieh Profile, page 119

4. Ain el Helwe Camp Profile

Location: Saida, South Lebanon
Year of Establishment: 1949
Estimated Population: 45,337

Access to the Camp

Access to the camp is restricted by passing through two checkpoints established by the Lebanese Army Forces at the entrance of Tawari and Sekke AAs from one side and Baraksat AA from the other. Another two checkpoints are established inside the camp by the Palestinian political factions.

Local Authority

At the local level, two Popular Committees (PCs) exist in Ain el Helwe Camp; one is affiliated to the PLO and the other to *Tahluf*. The latter includes members of the prevalent Islamic forces in the camp. All of these groups have formed a single body, the Follow-up Committee, for monitoring security in the camp. Ain el Helwe Camp is divided into 11 sectors. The PC, affiliated to the PLO, holds the responsibility of managing electricity and water supply in the camp through the Sector Committees.

UNRWA Services

UNRWA started its services in Ain el Helwe Camp in 1952. It currently manages the following basic urban

Ain el Helwe Camp (Source www.palestineremembered.com)

services: sewerage; solid waste collection and disposal; and road network. It also provides educational and health services through nine elementary/preparatory schools and one secondary school, two health care centers and a radiology unit that serves the Saida area. These facilities are located inside the camp. UNRWA operates a Social Safety Net Programme that benefits 9,128 individuals and a Disability Programme that provides support for persons and students with disabilities. It also maintains an early intervention unit that gives access to micro-credit loans to refugees living in the camp.

Active NGOs

A number of international and national NGOs are active in Ain el Helwe Camp, including Al-Najda, Beit Atfal Al-Soumoud, Ghassan Kanafani Cultural Foundation, the Palestinian Women's Union, Terre des Hommes, Nabeh, YMCA, Al Karameh Association for the Disabled, and the Popular Aid for Relief and Development (PARD). The services provided include literacy courses, vocational training, summer camps, medical services and kindergartens.

Basic Urban Services in Ain el Helwe Camp

The management and state of basic urban services in Ain el Helwe could be summarized as follows:

Water Provision: Water is provided to households in Ain el Helwe camp through 10 wells located inside the camp. These wells were established through donations from the PLO, Palestinian political factions, Arab countries and local political figures. They are currently managed by the PC affiliated to the PLO through the Sector Committees. The water network, implemented by UNICEF in 1987, reaches all houses in the camp; however it is in need of rehabilitation due to corrosion and extensive damages. UNRWA provides water chlorination for the wells and sometimes assists in the running costs of the pumping stations (fuel). It should be noted that although 10 wells exist in Ain el Helwe Camp, improper use and management of water sources results in shortage of water provision.

Sewerage: All houses in the camp are connected to a sewage network that was established by UNRWA prior to the civil war. This network is managed and operated by UNRWA. Plans to rehabilitate the sewerage system are pending due to the unavailability of donors' funds. These plans are part of the WATSAN project planned by UNRWA in 1996 with a total cost of 8 million USD.

Solid Waste Management: This service is provided by UNRWA, free of charge in the camp. UNRWA sanitation workers collect wastes to collection points located in the camp and some AAs. UNRWA trucks transport collected wastes to Saida dump.

Electricity: Prior to the civil war, the electricity network inside the camp was under the management and supervision of EDL. After the Israeli invasion of 1982 on Lebanon, which inflected huge damages on the network, the PLO took the initiative of rehabilitating and upgrading the network and the PC took over the responsibility of its operation. All of the transformers currently found in the camp (29 transformers) were purchased through financial resources from dwellers in the camp and the PLO, collected by the PC. Dwellers do not pay consumption bills to EDL.

Road Networks: Roads in the camp vary from medium and small width streets to narrow alleys. These roads were paved with cement with the efforts of UNRWA, the PC and dwellers mainly under UNRWA Self-Help Programme. UNRWA plans to rehabilitate and upgrade storm drainage system in the camp are currently on hold.

5. The AAs: Profiling and Access to BUS

This section presents the profiles and the detailed findings concerning dwellers' access to basic urban services in the following AAs surrounding Ain el Helwe Camp:

1. Baraksat
2. Bustan el Kods and Ouzo
3. Bustan abou Jamil
4. Fadlo Wakim
5. Hay el Sohoun
6. Jabal el Halib
7. Sekke
8. Tawari

Figure 21: *The eight Adjacent Areas surrounding Ain el Helwe Camp, South Lebanon*

Baraksat

Adjacent Area Profile

Location and Boundaries

Baraksat is located north-east of Ain el Helwe Camp. Most of the AA is located within the municipal boundaries of Mieh Mieh; a smaller part in the west is located within the Municipality of Saida. Baraskat is surrounded by Taamir and the AAs of Tawari and Bustan al Kods from the west, Ain el Helwe Camp from the south, the Public Hospital in Saida from the north and the residential area of Mieh Mieh from the east (see figure 22).

Ownership

Parts of the land in Baraksat belong to private Lebanese owners from Mieh Mieh village. The other part is public land under the local authorization of Mieh Mieh Municipality (PU & NRC, 2009).

Demography

Baraksat is inhabited by a majority of Palestinian dwellers and some Lebanese families. According to PU & NRC (2009), the number of Palestinian households is 448 (2,019 dwellers). The number of households as informed by the PC in Baraksat is 615 (3,260 dwellers), of which 60 are Lebanese.

Living Environment

The AA of Baraksat is composed of two and three-storey concrete buildings distributed along a combination of main streets and narrow alleys. Most roofs are built with concrete, with around 20 percent built with corrugated iron sheets (zinco) (PU & NRC, 2009). PU rehabilitated a total of 44 shelters identified to be in need of urgent intervention. However, zinco roofs were not replaced in the AA since the Lebanese law prohibits the construction of concrete roofs in illegal settlements. According to representatives of the local community, other shelters are still in need of rehabilitation.

History and Growth

The initial shelters in Baraksat were built in 1956 by the Lebanese State to house Lebanese families displaced from their houses by the earthquake that hit Lebanon at that time. Each family was provided with a one or two-room prefab metallic shelter. During 1969–1970, Lebanese families started selling these shelters to Palestinian families and moved to the close Villat area within the Municipality of Saida. The Palestinian families, who mostly came from other camps like Nabatieh and Tal el Zaatar in search of a more secure location, started extending these shelters and building new ones. Baraksat continued to grow both horizontally and vertically during the civil war with the arrival of Palestinian families displaced from other camps mainly in the South.

General scenes from Baraksat AA

Local Organizational Structure

At the local level, the AA of Baraksat is managed by an independent Popular Committee (PC) formed under the structure of the PC in Ain el Helwe Camp. The PC in Baraksat was formed through consensus among dwellers to include four members. Dwellers resort to the PC in the AA in case of problems. The PC in Baraksat tries to solve these problems or resort with some dwellers to the PC in Ain el Helwe Camp. These two Popular Committees hold non-periodic meetings to discuss problems and coordinate their works.

According to the PC in Ain el Helwe Camp and the local PC in Baraksat, dwellers resort less to other stakeholders such as the Municipality of Mieh Mieh and UNRWA, since they rarely cooperate for interventions in basic urban services.

Financial Resources

The PC in Baraksat used to collect monthly contributions of 3,000 LBP (2 USD) from each household to feed the local fund. However, about two years ago, dwellers stopped paying the PC. In return, the latter stopped requesting households to financially contribute to the fund. In case of interventions in BUS, the PC in Baraksat coordinates with the PC in Ain el Helwe Camp to access financial contributions from the PLO.

Figure 22: *Location of Baraksat AA around Ain el Helwe Camp*

Basic Urban Services

Water Provision

Water Source

Water is provided in Baraksat from a well that was established by the PLO in 1980 in the Villat area outside Ain el Helwe Camp. Water from the well is pumped to a concrete water tower established by the PLO in 1987 in the same area. From the tower, water is distributed to collective manifolds through a 3" galvanized water pipe.

This initial network, implemented by PLO and the dwellers, was recently renewed by PU. PU also secured an additional water source from the "Taitaba" well in the camp. According to PU and NRC (2009), 25 percent of households in Baraksat are connected to Saida general network and 5 percent are informally connected to the Villat network. According the Water Authority (WA) in Saida, some houses in Baraksat area are connected to another 2" pipe from the camp.

Network Implementation

The initial network was established through cooperation between the PLO and dwellers, who continued the work to connect metal pipes from the water tower and sometimes directly from the well to their houses. According to representatives of the local community, when the PLO recognized that the well and the water tower were located outside the boundaries of the camp, they agreed to delegate the management of the water station to the WA in Saida in 1982. According to the PC in Baraksat, Saida WA distributes water from the same well to Villat (in Saida), Taitaba (in the camp) and Bustan el Kods AA.

In 2009 and as part of its projects in Palestinian gatherings, PU installed a new water network and connected under-ground plastic pipes to 90 collective manifolds in Baraksat. Most manifolds were connected to groups of four houses; others connected to groups of 10 houses. As informed by the local PC in Baraksat, the width of the main line is 2.3" and of the secondary lines is 1, 1 ½ or 3/4". The new network has solved previous problems related to water quantity and quality and prevented water mixing with sewage.

Operation

The operation and maintenance of the water station is under the authority of the WA in Saida. The network inside Baraksat is managed by the local PC, which hired a member in the committee to implement future maintenance works.

Repairs

In case of future repairs to the newly implemented network, it is foreseen that the PC in Baraksat would carry out this responsibility. Efforts from the local PC as well as dwellers were applied for repairing the previous network. Repairs in the water station are the responsibility of Saida WA.

Quantity of Water

According to representatives of the local community, the pressure of water has considerably improved with the establishment of the new network by PU. Water pumped is enough to fill 1m³ dwellers' private tanks. Most households have two plastic tanks, one at the ground level and one at the roof; individual pumps are used to drive water from the first to the second tank. Water reaches households four to six hours a day.

Quality of Water

Water in Baraksat is used for drinking, cooking and services. Representatives of the local community expressed their satisfaction with the quality of water, which has improved after the PU project. Dwellers do not encounter the need to buy potable water any more.

Steel pipes connected by dwellers for water provision in Baraksat

The WA in Saida is responsible for monitoring the quality of water from the main source. According to the assessment undertaken by PU and NRC (2009), no contamination was found in water in Baraksat.

Main Problems

In general, representatives of the local community have expressed their satisfaction with water provision currently in Baraksat. The only problem occurs when electricity cuts-off for long periods, which affects the pumping of water to private tanks.

Problems occur in the parts of the water network that have not been rehabilitated by PU. These problems are mostly related to the corrosion of pipes, which affects the quality of water and allows sewage to mix with the water system.

Needs

Representatives of the local community expressed the need to complete the rehabilitation project undertaken by PU to cover the entire water network in Baraksat.

Sewerage

Method and Implementation

Houses in Baraksat are connected to a network that was established by the PLO in 1988 and rehabilitated by the PU in 2009. The PLO has installed main concrete sewage lines that were connected to the camp network along the main road at the entrance to the camp (see figure 21). Dwellers individually connected steel pipes, using their financial and technical resources, from the main lines to their houses. After conducting the assessment with NRC, PU renewed inadequate sewage main lines in the AA and replaced metal manhole covers with concrete ones. These interventions were complimentary to protect the implemented water networks from contamination by sewage. PU has also conducted a hygiene awareness campaign for dwellers in Baraksat.

Operation and Maintenance

Maintenance of the sewage network in Baraksat is carried out by the worker hired for maintaining the water network. Sometimes, the PC in Baraksat resorts to other stakeholders such as the PC in Ain el Helwe Camp or the Municipality of Mieh Mieh to unblock congested manholes.

In one case, members of the local PC contacted Mieh Mieh Municipality and requested its intervention to unblock congested manholes. Given the security measures, the Lebanese Army Forces did not allow the employees and machineries to cross the checkpoint to the AA. The local PC coordinated with the PC in Ain el Helwe Camp, which in turn negotiated with the Army to allow for municipal intervention, assuming responsibility for the safety of employees and machineries.

Repairs

Dwellers implement repairs to their household connections using their financial resources and technical skills. For large-scale repairs, dwellers resort to pooling financial contributions to hire local technicians.

Open manhole for sewage and rain water disposal in Baraksat

Problems

The main problems in sewerage in Baraksat could be summarized by:

- Flooding of sewage; according to representatives of the local community, this problem is due to the wrong alignment of manholes with the slope of the area and the undersized main sewage lines. In winter, sewage mixes with rain water and floods in the narrow alleys between the houses.
- Accumulation of residues in the pipes due to the under-sized diameter of the main sewage line (8").

Needs

Representatives of the local community expressed the need to continue the rehabilitation and upgrading of the sewage network and to increase the size of the pipes. In the opinion of the local PC members, the main sewage line needs to be replaced by a 14" pipe along a 300 meter length.

Solid Waste Management

Applied Method

Solid waste collection in Baraksat is provided as a private service that was facilitated by the local community. Four dwellers carry out solid waste collection as a 'private business' in exchange of a monthly fee of 5,000 LBP (3.3 USD) per household. One worker collects wastes using a small pick-up he owns and the other three using wheelbarrows. Collected waste is disposed in UNRWA collection point along the main street at the entrance of the camp.

There exist no containers for solid waste collection in Baraksat; instead dwellers place their waste in plastic bags in front of their houses. Representatives of the local community mentioned that UNRWA offered to place containers in the neighborhood; dwellers however refused for 'security reasons' and to avoid waste accumulation between the houses.

Solid waste collection, using wheel cart, as a private service in Baraksat

Problems

According to representatives of the local community, the main problem is the lack of a solid waste management service operated by an organized institution. The absence of sustainability in this case constitutes a major concern to dwellers.

Needs

Communicated needs are basically related to developing a sustainable and efficient strategy for solid waste management in Baraksat. This could be achieved, according to interviewed dwellers and the PC, through the presence of a committed organized institution or NGO that works for Palestinian refugees. Under the current state of the service, representatives of the local community expressed the need for a pick-up truck or dumper and containers to facilitate solid waste collection.

Electricity

Source

Electricity is provided to households in Baraksat through three different modes and from three sources. 1) Households living in the center of Baraksat are connected to a 500 KVA transformer installed by the PLO in the AA and informally connected by EDL; 2) Around 150 households living in the southern part of Baraksat are connected to the camp network managed by the PC in Ain el Helwe Camp through a 360 KVA transformer located in Taitaba in the camp; 3) Another 100 households living in the northern part of Baraksat are informally connected to the public network of Villat.

Electricity is provided every other six hours, as per EDL system of regular cut-offs in the surrounding area. As a result, some dwellers subscribe in private generators' services, which provides 5 Amperes in exchange for 70,000 LBP (46.7 USD) per month. It should be noted however that not all dwellers in the AA can afford to subscribe to this private service.

Network Implementation

- **PC/EDL Network:** An electricity network was informally installed by EDL in Baraksat in 1992; when the PCs in Baraksat and Ain el Helwe Camp resorted to a prominent political party in Saida for support. The local PC has collected half the cost of a 250 KVA transformer from dwellers and the political party covered the other half (total cost 5,000 USD). Through donations from the party, EDL installed the electricity poles and main network in Baraksat. According to interviewed dwellers, EDL workers installed the network in an informal way as a private service and received financial remuneration. The installed network is similar in system to that in the camp; it is connected to electric distribution boards in the neighborhood instead of meters. Dwellers individually connected their houses to the distribution boards using unshielded copper cables. Due to over-pressure on the network, the transformer has collapsed; the local PC coordinated

its works with the PC in the camp and installed a new 500KVA transformer through donations from the PLO in January 2008.

- **Camp Network:** The PC in Baraksat coordinated with the PC in the camp to organize electricity provision from the camp network. The local PC makes sure that each household connected to this network is provided with 10 or 15 Amperes.
- **Villat Network:** Some households who live close to the Villat area have accessed electricity through individual informal hooking to the existing public network.

Operation and Cost Recovery

Electricity networks in Baraksat, excluding that hooked from Villat, is managed by the local PC under the wider structure of the PC in Ain el Helwe Camp. EDL has no role in maintaining or repairing the electricity network and none of the households in Baraksat pay consumption bills. For maintenance works, the local PC hires technicians from the camp or other AAs.

Repairs

Repairs to the network are usually carried out by the PC in Baraksat. The PC used to use the local fund for this reason;The local PC used to pay the worker from the local fund, which is no longer operational as mentioned previously. For large-scale repairs and renewals, the PC in Baraksat coordinates with the PC in the camp to contact active political figures in the area. The costs in this case would be shared by the PLO and dwellers and sometimes political figures.

Problems

Electricity provision in Baraksat is characterized by the absence of a comprehensive and a reliable strategy. Problems are mostly related to:

- Shortage in electricity provision due to over-load on the networks.
- Old and unshielded secondary connections, which are inefficient and unsafe.
- Informal hooking.

Needs

Representatives of the local community expressed the need for an additional transformer with a capacity of 1,000KVA to respond to dwellers needs. The main and secondary connections, currently made of copper, need to be replaced with upsized shielded aluminum cables for safer and better conductivity.

Unorganized connection from the PC/EDL electricity network in Baraksat

Road Networks

Current State

The road network in the AA of Baraksat consists of main streets and narrow alleys between the houses. The width varies from about 3m for main streets to 1m for alleys. Most roads are covered with asphalt and concrete layers that are in need of rehabilitation. Roads in Baraksat lack storm drains, street lighting and sidewalks. In winter, sewage mixes with rain water and fills the holes in the roads. Some dwellers have individually and collectively installed light bulbs in front of their houses to light the alleys and streets at night.

Implementation

The main streets in Baraksat were asphalted in 1980 mainly by the PLO. In addition, dwellers covered parts of the alleys in front of their houses with concrete layers. No maintenance works are carried out to the roads in Baraksat. In 2009, PU rehabilitated sections of the roads as part of its WATSAN project in the AA.

Repairs

No stakeholders have carried out repair works to the road network in Baraksat. For repairs, dwellers prepare a concrete mix and cover the holes in front of their houses.

Problems and Needs

The main streets in Baraksat are damaged and in need of rehabilitation and asphalting. Other streets and alleys that were partly rehabilitated by PU need complete rehabilitation and paving. In addition, roads are in need of a storm drainage system and lighting.

Unpaved internal roads in Baraksat

Priorities for Intervention

Intervention priorities in Baraksat were identified by representatives of the local community, in a descending order of importance, as follows:

1. Implementing a new and adequate electricity network to connect to all houses.
2. Completing the rehabilitation of the sewage network initiated by PU; upgrading the capacity of the network by replacing undersized pipes.
3. Asphalting and paving roads and implementing a storm drainage system.
4. Developing a sustainable and efficient strategy for solid waste management.

Finally, it is worth mentioning that representatives of the local community stressed the need for rehabilitating an additional 90 houses in Baraksat.

Bustan el Kods & Ouzo

Adjacent Area Profile

Geographic Location

The AA of Bustan el Kods is located north of Ain el Helwe Camp. Administratively, it lies within the municipal boundaries of Saida. It is surrounded by the AA of Sekke from the west, Taamir from the north, the AA of Baraksat and parts of Ain el Helwe Camp from the east and the camp from the south. It should be noted that the western part of Bustan el Kods includes a small area called "Ouzo" (see figure 23). Since this area exhibits similar characteristics in terms of access to basic urban services to Bustan el Kods and is managed by the same Sector Committee, it will be included with the AA of Bustan el Kods.

History and Growth

Bustan el Kods was mainly created in 1982, when Palestinian families left other camps in Lebanon during the civil war in search for a safer place. Displaced households built their houses on the land, which the PLO has previously turned in most parts to a playground. The AA was originally known as 'Bustan al Yahoudi', since it belonged to Jewish families. The AA of Ouzo was formed in 1985, when the PLO rented the land for five years to house some Palestinian families displaced from other camps.

Demography

While Bustan el Kods is completely inhabited by Palestinian families, Ouzo accommodates for Syrian families as well. According to representatives of the local community, the total number of households is 216 (1,145 dwellers) in Bustan el Kods and 40 (212 dwellers) in Ouzo. This number however varies according to different sources. According to DRC (2005), a total of 172 households (1,000 dwellers) live in Bustan el Kods. According to a PU & NRC (2009), the number of households is 133 (688 dwellers). However, it is believed that these numbers exclude households living in Ouzo.

Land Ownership

The lands of Bustan el Kods and Ouzo belong to private owners. Most of the owners of land in Bustan el Kods are Lebanese Jewish residents who emigrated from Lebanon during the civil war. A law suit by a land owner in Ouzo is still in the courts to date.

Living Environment

The AA of Bustan el Kods is composed of multi-storey concrete buildings (average three to four floors) distributed mainly along narrow roads. Buildings are in acceptable condition. In 2009, the PU started a project for rehabilitating around 30 shelters in Bustan el Kods. An empty piece of land located between the houses in Bustan el Kods is being used by dwellers as a waste dump. The living environment in Ouzo is very poor, with one or two room houses and extremely narrow alleys. This layout results in inadequate ventilation and lighting conditions.

General scene from Bustan el Kods

General scene from Ouzo

Local Governance of Basic Urban Services

Local Organizational Structure

At the local level, the AA of Bustan el Kods constitutes a sector that is followed by Ain el Helwe Camp. It is managed by a Sector Committee (SC) formed under the wider structure of the PC in the camp. The SC is represented by one member in the PC of the camp; it was formed through consensus among dwellers to include six members who hold periodic meetings every 15 days. Dwellers discuss problems in basic urban services with the SC, which discusses these concerns and needs in periodic meetings with the PC in the camp. The SC in Bustan el Kods is an active and well connected committee which, in coordination with the camp PC, deploys its relationships with the PLO, UNRWA and political figures in Saida to facilitate BUS interventions.

It should be noted that Ouzo is included within the Second Sector of the Camp. The governance of BUS in Ouzo is shared by the SC of the Second Sector of the camp as well as the SC in Bustan el Kods. These committees extend some of these services to Ouzo and usually exempt most households living in Ouzo from contributing to their funds, due to the latter's' poor economic conditions.

Financial Resources

The SC in Bustan el Kods has initiated a sector fund fed through monthly contributions of 3,000 LBP (2 USD) collected from each household. Money from this fund is used for maintenance and repairs to the water, sewage and electricity networks. For repairs and renewals mainly in the electricity network, the SC collects additional contributions from dwellers as well as the PLO. The PC in Ain el Helwe Camp extends the works of its maintenance workers to Bustan el Kods.

Figure 23: *Location of Bustan el Kods and Ouzo AAs around Ain el Helwe Camp*

Water Provision

Water Source

Water is provided in Bustan el Kods and Ouzo from 'Anwar Madi' well located in the area closer to Ouzo. The well and the network were established in early 1990s by collaborative work from the local community and the PLO. Water is directly pumped from the well to the network, which connects to the houses without the use of intermediate collective manifolds. In 2009, PU started works to upgrade and renew the water network in Bustan el Kods.

Before the establishment of this network in 1990s, dwellers did not have access to a water network; they used to fill water gallons from nearby wells.

Network Implementation

The water station was established in 1990 through local initiatives, when dwellers in Bustan el Kods gathered donations from well-off Palestinian families in the surrounding areas. Works were supervised by active dwellers in Ain el Helwe Camp and the AA. In 2000, the PLO built a water tank in Bustan el Kods; however, this tank is not used today to pump water to Bustan el Kods. In the same year, the PLO established the main water lines using 12" steel pipes. Dwellers continued the work to connect 1/2" steel pipes from the main network to their houses; most of the network was implemented above ground. In 2010, PU finalized the renewal and upgrading of the water network in Bustan el Kods.

Operation

The operation and maintenance of the water network fall under the responsibility of the SC in Bustan el Kods. For this purpose, the SC benefits from a worker appointed by the camp PC to operate the water station and implement maintenance works to the network. This worker is paid a total amount of 50,000 LBP (33.3 USD) from the PC in Ain el Helwe Camp to manage water in more than one location in the camp and the AAs. The SC contributes with an additional equal amount from the sector fund.

Repairs

Repairs to the water network are carried on the expenses of dwellers, who collect money from each other in case of collective repairs. In cases of damages to the main network, dwellers or the SC contact the PC in Ain el Helwe Camp for additional support.

Quantity of Water

According to representatives of the local community, the quantity of water is sufficient to respond to dwellers' needs. However, water supply is sometimes affected by electricity cut-offs. Water is pumped around 12 hours a day to supply all houses. Some houses located in farther and higher areas experience problems with water supply. Dwellers have 1m³ plastic and some metal water tanks on their roofs.

Quality of Water

Water in Bustan el Kods and Ouzo is generally used for cooking and service and less for drinking. Although UNRWA carries regular chlorination in the well, dwellers have concerns that water quality is compromised by the corroded and damaged networks, mainly those that were not rehabilitated yet by PU. Dwellers associate the use of this water with some diseases, such as infections and kidney diseases. As an alternative, financially capable dwellers buy potable water, especially for children use, with an average monthly cost of 50,000 to 70,000 LBP (33 to 46 USD). According to the assessment undertaken by PU and NRC (2009), no contamination was found in water in Bustan el Kods.

Main Problems

Representatives of the local community communicated the following problems in the water sector:

- Inadequate state of parts of the secondary network due to the old, corroded and damaged pipes, which affect the quality of water.
- Insufficient provision to some houses located at the higher areas in Bustan el Kods. This is due to compromised pumping pressure given the difference in level.
- Interrupted pumping from the well since there is no collective tank or water tower to collect water. This process is time and money consuming.

Needs

Representatives of the local community expressed the need for establishing a new water network in Bustan el Kods and Ouzo.

Partially exposed water network in Bustan el Kods

Sewerage

Method and Implementation

Houses in Bustan el Kods are connected to a sewage network that was established by the PLO in 1998. The PLO installed an 8" main sewage line and 4" secondary lines and connected the network to that in Ain el Helwe Camp. Dwellers continued the work to connect their houses to this network. Houses in Ouzo are informally hooked to the sewage network of the camp. In 2010, PU finalized the upgrading and renewing of parts of the sewage network in Bustan el Kods to protect water sources. PU has also conducted a hygiene awareness campaign for dwellers in the AA.

Operation and Maintenance

Maintenance works are carried by the worker appointed to operate the water network in the camp and some AAs. In Ouzo, dwellers resort the PC in the camp or the SC in Bustan el Kods for assistance.

Repairs

Dwellers implement small-scale repairs to the network themselves, either individually or collectively.

Problems

According to representatives of the local community, the sewage network in Bustan el Kods and Ouzo faces a number of problems:

- Continuous damages to the network due to the increased load.
- Congestion of sewage network in the camp and the AA and flooding of sewage in the roads of the AA.
- Mixing with water networks since some pipes are damaged and broken.
- Some inadequate old pipes.

Needs

Interviewed dwellers and SC members expressed the need for a new developed sewage network in Bustan el Kods as well as in Ouzo.

Damaged sewage pipes in Bustan el Kods

Solid Waste Management

Applied Method

Solid waste collection in Bustan el Kods is currently provided by UNRWA, free of charge, through informal requests from dwellers and the SC. UNRWA collects wastes using a truck and transports them to UNRWA collection point in Ouzo. Dwellers in Ouzo carry their garbage to this collection point. There are no containers for solid waste collection inside Bustan el Kods or Ouzo.

Problems

The following problems exist in the sector of solid waste management in Bustan el Kods and Ouzo:

- In Bustan el Kods, the main problem is related to the lack of containers for solid waste collection inside the AA. Dwellers also throw their garbage in an empty piece of land located between the houses.
- In Ouzo, the local community complains of the presence of UNRWA solid waste collection point in their area, which causes undesirable smells and potential risks to public health.

Needs

Communicated needs are related to placing covered containers for solid waste collection in the neighborhoods. Dwellers in Ouzo expressed the need to address the unsuitable location of UNRWA collection point within the neighborhood.

UNRWA collection point near residential neighbourhoods of Bustan el Kods

Electricity

Source

Electricity is provided to households in Bustan el Kods through an electricity network that was organized by the SC and installed in collaboration with dwellers. Two 250KVA transformers were installed in the AA by the SC and the PC in the camp through financial contributions from the PLO and dwellers. The main lines are connected to 12 distribution boards in the neighborhood; each board connects to around 15 houses. The electricity network is managed by the SC under the wider umbrella of the PC in Ain el Helwe Camp. Before the implementation of this network, dwellers used to rely on informal hooking to the surrounding networks.

It should be noted that houses in Ouzo are connected to the camp network in the Second Sector of the camp. The method of connection and operation of service is similar to that in Bustan el Kods.

Similar to the surrounding area in Saida, Electricity is provided every other six hours.

Network Implementation

In 2004, the SC in Bustan el Kods discussed the need to organize electricity provision in the AA with the camp PC. The PC secured the cost of a 250KVA transformer from the PLO and EDL installed it in the area. The main network and distribution boards were installed by the SC in Bustan el Kods with support from the PC in the camp and dwellers.

In 2007, another 250KVA transformer was purchased by the SC, through collecting 20,000 LBP (13.3 USD) from each household and an additional contribution from the PLO. Five main shielded cables were also purchased and installed. Dwellers continued the work at their own expenses to connect their houses to the distribution boards.

Operation and Cost Recovery

The electricity network in Bustan el Kods is managed by the SC under the wider structure of the PC in Ain el Helwe Camp. Maintenance works to the electricity network is done in a similar way to the water and sewage networks (see above). Dwellers do not pay consumption bills to EDL.

Repairs

Minor repairs to the network are usually carried by dwellers or by the SC using the sector fund. In cases of major repairs, the SC resorts to the PC in the camp for support, which secures additional funding from the PLO. For repairs to the electricity network in Ouzo, dwellers pay monthly contributions of 2,000 LBP (1.3 USD) per households to the SC of the Second Sector of the camp.

Problems

Problems in the electricity network in Bustan el Kods and Ouzo are related to the following:

- Shortage in electricity supply due to the insufficient capacity of the transformers.
- Old damaged cables that reduce electric conductivity and cause cut-offs.
- Ad-hoc methods of house connections which result in repetitive damages and inefficiency of the network.

Needs

Representatives of the local community expressed the need for renewing the electricity network and installing an additional transformer and up-sized cables to respond to dwellers needs.

Unorganized electricity connections from a distribution board in Bustan el Kods

Road Networks

Current State

The road network in the AA of Bustan el Kods consists of two main streets and narrow alleys between the houses. The widths of the main streets are 3 and 4 meters and those of the alleys could reach less than 1 meter. Roads in Ouzo consist of narrow alleys with an average width of less than 1m.

Most roads are covered with concrete layers; some in need of rehabilitation. In winter, sewage water mixes with rain water and fills the holes in the roads of the AA. Generally, the main roads in Bustan el Kods lack storm drains and sidewalks, in addition, exiting street gutters are uncovered. The SC has purchased and installed two street lamps along the main streets, in addition to four lamps that were donated by the Municipality of Saida in 2007.

Repairs

No stakeholders carry out repair works for the road network in Bustan el Kods and Ouzo. For repairs, dwellers prepare a concrete mix and cover the holes that are in front of their houses.

Problems and Needs

The main problem in Bustan el Kods is the flooding of sewage and rain water in the roads. The rehabilitation and repair of damaged roads would mitigate this problem. Main roads in Bustan el Kods need asphalting or paving, storm draining system and street lighting.

The narrow alleys of Ouzo

Priorities for Intervention

Intervention priorities in basic urban services in Bustan el Kods were identified by representatives of the local community, starting with the most urgent, as follows:

1. Rehabilitating and upgrading the sewage network and separating it from the water network.
2. Building a collective water tank to store and distribute water pumped from the well.
3. Upgrading the electricity network and installing an additional transformer.
4. Asphalting and paving roads and implementing storm drainage systems.

Intervention priorities in basic urban services in Ouzo were identified by representatives of the local community, starting with the most urgent, as follows:

1. Rehabilitating and upgrading the sewage network and separating it from the water network.
2. Rehabilitating the water network.
3. Upgrading the electricity network and installing an additional transformer.

Bustan Abou Jamil

Adjacent Area Profile

Geographic Location

Bustan abou Jamil is located west of Ain el Helwe Camp. Administratively, it lies within the municipal boundaries of Saida. It is surrounded by agricultural lands in Saida from the west and by Ain el Helwe Camp from the east, north and south (see figure 24). An old non-operational railway separates the AA from the surrounding areas in Saida to the west.

Land Ownership

The land belongs to a Lebanese owner (Abou Jamil Tawileh) from the neighboring village of Darb el Sim. A law suit has been in court since the 1990s, but the owner died and problems with the successors have not been solved yet.

Demography

Bustan abou Jamil is inhabited by a majority of Palestinian dwellers. According to representatives of the local community, the total number of households in Bustan Abou Jamil is around 80 (424 dwellers).

Living Environment

The AA of Bustan abou Jamil is composed of single-story and double-story concrete houses distributed along a main street and a number of alleys. Most roads in Bustan abou Jamil evolved from narrow paths left between the houses. The living conditions are poor since generally no NGOs or other stakeholders are active in this area.

History and Growth

Bustan abou Jamil was formed during the civil war, when Palestinian families were displaced from other camps in Tyr, Tripoli and Beirut and built houses on the agricultural land (orchid) of Bustan abou Jamil.

A view from the AA of Bustan abou Jamil

Local Governance of Basic Urban Services

Local Organizational Structure

The AA of Bustan abou Jamil is geographically and socially interlinked with the adjacent Arab el Ghweir area, the latter being part of Ain el Helwe Camp. In Arab el Ghweir, UNRWA and the camp PC provide basic urban services; however, in order to improve the state of these services, dwellers have formed a separate local committee. The local committee of Arab el Ghweir extends its services to Bustan abou Jamil, since the latter does not have a local committee of its own. The formation of a committee in Bustan abou Jamil is currently being discussed to include some active members in the AA. The lack of an organizational structure and strong relationships with other stakeholders in Bustan abou Jamil reflects on the deteriorated state of BUS in the area.

Financial Resources

Households in Bustan abou Jamil contribute monthly amounts of 3,000 LBP (2 USD) per household to the local fund of Arab el Ghweir. In return, the local committee of Arab el Ghweir assumes maintenance responsibilities of the water and electricity networks in Bustan abou Jamil. In case of repairs to infrastructure networks, dwellers, individually or collectively, collect payments to hire relevant workers and technicians.

Figure 24: *Location and key BUS in Bustan abou Jamil AA around Ain el Helwe Camp*

Water Provision

Water Source

Water is provided in Bustan abou Jamil from a well that was established by Hamas in 1992 in Ain el Helwe Camp, through informal connections to the main water network in the camp.

Network Implementation

To access water, dwellers informally connected to the camp network through making holes in the main water lines and welding steel pipes reaching their houses. Dwellers use individual pumps to drive water to 1m³ plastic tanks installed on the roofs of their houses.

Operation

The water station is managed by the PC in the camp. For necessary maintenance works to the network in Bustan abou Jamil, dwellers contact the local committee of Arab el Ghweir. The latter sends hired technicians and pay them from Arab el Ghweir local fund.

Repairs

Dwellers individually carry out repairs to the water pipes using basic methods. In cases of damages to the individual pumps, dwellers contact a technician either directly or through Arab el Ghweir committee and pay him individually.

Quantity of Water

Water provided in Bustan abou Jamil is not sufficient, mainly because of the improper connection methods to the camp network and the use of under-sized pipes. Dwellers cannot operate their individual pumps regularly to drive water to their tanks due to frequent electricity cut-offs.

Quality of Water

Water in Bustan abou Jamil is generally used for drinking, cooking and service. UNRWA carries regular chlorination to the well but dwellers believe the water quality to be compromised by the damaged and corroded pipes, which allows for mixing with sewage. They associate the use of this water with some diseases, such as infections and kidney diseases. As an alternative, dwellers who can afford buy potable water, especially for children use.

Main Problems

According to representatives of the local community in Bustan abou Jamil, the main problems are:

- Inadequate and inefficient connections that were established using ad-hoc informal methods.
- Mixing of water and sewage.
- Shortage in water provision due to the regular cut-offs in electricity, which interrupts pumping to the individual tanks.

Needs

Representatives of the local community expressed the need for establishing a new adequate water network in Bustan abou Jamil and to prevent its mixing with sewage.

Collective water manifold installed by dwellers in Bustan abou Jamil

Sewerage

Method and Implementation

Dwellers have no access to a sewage network in Bustan abou Jamil. As an alternative mechanism, they use individual or collective septic tanks that work without a drainage system. Dwellers have dug the septic tanks and connected their houses to these tanks by above and under-ground pipes. The expenses were paid by dwellers either individually in case of individual septic tanks or collectively through pooling money from two to five households in case of collective septic tanks.

Around fifteen households in Bustan abou Jamil are informally connected to the main sewage line in the AA of Sekke. A dweller from Bustan abou Jamil collected money from the other 14 houses to install a 40m long pipe and connected it to the main sewage line in Sekke.

Operation and Maintenance

There is no emptying of septic tanks. When the tanks are full, dwellers cover them with sand and cement layers and dig new ones to which they relocate the old pipes.

Problems

The main problems in the sewerage in Bustan abou Jamil are related to:

- Hygiene and health problems and increased risk of pollution due to the use of septic tanks.
- Partially exposed septic tanks, which create many problems especially in the winter when rain water mixes with sewage and floods between the houses.

Needs

Representatives of the local community identified the urgent need to install a well-developed sewage network that connects to all houses in Bustan abou Jamil.

Solid Waste Management

Applied Method

There is no solid waste collection service in Bustan abou Jamil. In order to make up for the lack of service, dwellers carry their wastes in plastic bags and throw them in UNRWA collection point at the boundary of the AA.

Blocked and damaged water drains in Bustan abou Jamil

Problems

The lack of a sound strategy for solid waste management in Bustan abou Jamil has resulted in the accumulation of waste and garbage bags in the streets. According to representatives of the local community, the main problems are related to:

- The lack of a developed and sustainable strategy for solid waste management implemented by an organized institution in Bustan Abou Jamil.
- The location of UNRWA collection point for waste generated from the camp along the residential area of Bustan Abou Jamil (see figure 24).

Needs

Communicated needs focus on developing a sustainable and efficient strategy for solid waste management in Bustan abou Jamil by a committed institution. In addition, representatives of the local community expressed the urgent need to address the location and / or type of UNRWA collection point for solid waste in their neighborhood.

Electricity

Source

Electricity is provided to households in Bustan abou Jamil through informal hooking to the camp network in Ain el Helwe Camp and Arab el Ghweir. The main source of electricity is a 630KVA transformer located in Ain el Helwe Camp in Hay Amqa. An additional 600 Amperes are provided to some houses in Bustan abou Jamil from a 500KVA transformer in Arab el Ghweir.

Network Implementation

Dwellers have informally connected to the camp network using their own financial resources and technical know-how. The main electricity lines from the transformers connect to five distribution boards, which connect electricity to houses in the AA.

Operation and Cost Recovery

Necessary maintenance works are carried out by a technician hired by Arab el Ghweir Committee and paid from the local fund. Dwellers do not pay consumption bills to EDL.

Repairs

Repairs to the network are usually carried by dwellers in Bustan abou Jamil. Sometimes, dwellers contact a technician either directly or through Arab el Ghweir committee and pay him, either individually or collectively.

Problems

Problems in the electricity sector in Bustan abou Jamil are mostly related to:

- Shortage and inefficiency of electricity supply due to informal hooking.
- Excessive damages and cut-offs due to informal hooking and old cables.
- Lack of maintenance and repair works to the network.

Needs

Representatives of the local community expressed the need for renewing and upgrading the electricity network and providing a transformer for the households in Bustan abou Jamil.

Informal electricity hooking in Bustan abou Jamil

Road Networks

Current State

The road network in the AA of Bustan abou Jamil consists of one main street and a net of narrow alleys between the houses. Most roads are unpaved and are in urgent need of rehabilitation. They also lack storm drains, street lighting and sidewalks. In winter, sewage water mixes with rain water and fills the holes in the roads.

Implementation

Alleys are usually covered by concrete layers poured by dwellers in parts in front of their houses. The main road in Bustan abou Jamil was recently paved with concrete by dwellers. Dwellers covered the cost through collecting 5,000 LBP (3.3 USD) from each household and an additional contribution of 1,000 USD from UNRWA.

Repairs

No stakeholders carry out repair works for the road network in Bustan abou Jamil. For repairs, dwellers prepare a concrete mix and cover the holes that are in front of their houses.

Problems and Needs

The main problem in Bustan abou Jamil is the lack of properly paved roads in addition to the flooding of sewage and rain water, especially from the higher areas in Ain el Helwe Camp. Roads in the AA need paving, storm drainage and street lighting.

Internal alley in Bustan abou Jamil

Priorities for Intervention

Intervention priorities in basic urban services in Bustan abou Jamil were identified by representatives of the local community, starting with the most urgent, as follows:

1. Establishing a proper sewage network that connects to all houses.
2. Establishing a complete and adequate water network.
3. Renewing the electricity network and providing an electric transformer in the AA.
4. Finding a solution to the current location of UNRWA solid waste collection point along the residential area in Bustan abou Jamil.

Fadlo Wakim

Adjacent Area Profile

Geographic Location

The AA of Fadlo Wakim is located south of Ain el Helwe Camp. Administratively, it lies within the municipal boundaries of Saida. Fadlo Wakim is surrounded by the AAs of Jabal el Halib and Hay el Sohoun from the east and by Ain el Helwe Camp from the west, north and south (see figure 25).

Land Ownership

The land belongs to a Lebanese owner, Fadlo Wakim, whose inheritors have filed a law suit against the dwellers in the 1990s.

Demography

Fadlo Wakim is inhabited by Palestinian families. According to representatives of the local community, the total number of households in Fadlo Wakim ranges from 75 to 100 (389 to 530 dwellers).

History and Growth

In 1978, UNRWA rented most of the land in the AA for 10 years to build schools. In the 1982 Israeli invasion, the schools were destroyed; the land became a play ground until dwellers moved in and started building their houses in mid 1980s. Fadlo Wakim was mainly formed during the civil war, when Palestinian families were displaced from other camps in Tyr, Tripoli and Beirut. Other families moved to Fadlo Wakim from Ain el Helwe Camp as a result of overcrowding. Dwellers bought some existing houses in the AA and built new ones as well.

Living Environment

The AA of Fadlo Wakim is composed of multi-storey concrete buildings distributed along narrow roads. Most roads in the neighborhood developed from narrow paths left between the houses. Roads suffer from the flooding of sewage and rain water.

General scenes from Fadlo Wakim AA

Local Governance of Basic Urban Services

Local Organizational Structure

Fadlo Wakim is locally considered as part of Ain el Helwe Camp. The PC in Ain el Helwe Camp has included Fadlo Wakim within the Fifth Sector of the camp. At the local level, a Sector Committee (SC) manages the AA with Sector 5, under the structure of the camp PC. The SC consists of seven members, including representatives from the AA. In case of problems in basic urban services, dwellers collectively resort to the SC, which discusses their needs in periodic meetings with the PC in Ain el Helwe Camp. The SC, under the structure of the camp PC, contacts other active stakeholders such as the PLO, UNRWA and the Hariri Foundation in Saida for support in the various service sectors.

Financial Resources

The SC in Sector 5 of the camp has initiated a sector fund fed through monthly contributions collected from dwellers. Each household in Fadlo Wakim contributes a monthly amount of 2,000 LBP (1.3 USD) to be included in the maintenance of the electricity network carried by the SC. In case of repairs to the service networks in the AA, dwellers or the SC collect additional financial contributions from households.

Figure 25: *Location and key BUS in Fadlo Wakim AA around Ain el Helwe Camp*

Water Provision

Water Source

Water is provided in Fadlo Wakim from a well that was established by the PLO in 1986 in the AA (see figure 25). Water from the well is used to supply households in the camp as well. Since the recently established water tower is not operational, water is pumped from the well directly to the network. Dwellers in Fadlo Wakim connected their houses to the main network implemented by UNICEF in the camp in 1986.

Network Implementation

Dwellers used their financial resources and technical skills to connect underground steel pipes to the main network of the camp. The main network was established through successive contributions from different stakeholders. The PLO dug the well in 1987; UNICEF installed the main network in the camp in the same year; a pumping generator was donated by Lajnat al Zakat in 1998; a water tower was built through contributions from the Iranian Embassy in 2003; and a transformer was installed to operate the water station by the PLO in 2005.

Operation

The water station is managed by the PC in the camp. UNRWA covers the fees of fuel for operating the pumping generator in case of electricity cut-offs. According to interviewed dwellers, the water network in Fadlo Wakim is not maintained by any stakeholder.

Repairs

Dwellers individually and collectively repair damages to the water network in Fadlo Wakim, using basic methods of repairs.

Quantity of Water

Water used in Fadlo Wakim is sufficient to reach all houses. Water is operated six to eight hours a day depending on electricity provision. Dwellers use individual pumps to drive water to 1m³ plastic tanks installed on the roofs.

Quality of Water

Water in Fadlo Wakim is used for cooking and service. Dwellers generally do not use it for drinking although chlorination is carried out by UNRWA. They believe it is contaminated by the mixing with sewage into the corroded pipes and associate the use of this water with some diseases (infections and kidney diseases). As an alternative, dwellers buy potable water with a monthly cost of 30,000 to 40,000 LBP (20 to 26.7 USD).

Main Problems

According to representatives of the local community, the main problems related to water provision in Fadlo Wakim are related to:

- Inadequate and inefficient network that was established using ad-hoc informal methods.
- Mixing of sewage with water due to the damaged state of the network (broken and corroded pipes).
- Under-dimensioned main line (4") that distributes water from the well to the network.
- Defect in the design and construction of pipes in the water tower, which prevents the use of the tower in the process of water pumping.

Needs

Representatives of the local community expressed the need for establishing a new water network in Fadlo Wakim to prevent its mixing with sewage.

Water well established by PLO for water provision in Ain el Helwe Camp and Fadlo Wakim

Sewerage

Method and Implementation

Dwellers have established a sewage network in Fadlo Wakim as a collective initiative in the 1990s. Each household contributed an amount of 150,000 LBP (100 USD) to purchase the materials and carry out installation works. They later connected this network to the camp sewage network using underground 8" steel pipes. This was done without coordination with UNRWA or UNICEF.

As part of its works in the Fifth Sector of the camp, UNRWA has recently installed three manholes in Fadlo Wakim and one big collective manhole. This was done due to formal requests from the SC and the PC in the camp.

Operation and Maintenance

There is no structure for maintaining the sewage network in Fadlo Wakim. In case of congestion, dwellers contact UNRWA which sometimes sends workers to open blocked pipes and manholes. According to representatives of the local community, UNRWA responds since the network in the AA is interlinked with that in the camp network and the two affect each other.

Problems

Problems related to the sewage network in Fadlo Wakim is summarized by the following:

- Flooding due to under-sized pipes and manholes.
- Flowing of sewage inside the houses since some houses are lower than the roads.
- Mixing of sewage and water networks due to damaged and broken pipes.
- Inadequate old network.

Needs

Representatives of the local community identified the urgent need to implement a developed and comprehensive sewage network that complies with environmental and engineering standards in Fadlo Wakim. According to the SC, dwellers requested UNRWA CSO to provide them with pipes and necessary materials to enable them carry out necessary works to renew the existing network; however their requests were not met.

Solid Waste Management

Applied Method

Due to requests from the local community, UNRWA provides partial solid waste collection service in Fadlo Wakim. Dwellers carry out their garbage bags to the main street that demarcates the north-east border of the camp (see figure 25); UNRWA sends its trucks and workers to collect waste and transport it to UNRWA collection points in the camp. UNRWA placed three containers for solid waste collection along the main street. Another two containers that were placed in the neighborhood were removed by some households who complained of unpleasant smell.

Before UNRWA partial service, dwellers used to depend on a private service provider who charged a monthly amount of 5,000 LBP (3.3 USD) per household to collect solid waste.

Problems

According to representatives of the local community, the main problem is related to the lack of covered and well distributed containers for solid waste collection in the neighborhood.

Needs

Communicated needs are basically related to placing covered containers for solid waste collection in more suitable places away from the neighborhoods and the regular emptying of these containers.

Wastes accumulating on streets in Fadlo Wakim due to the absence of solid waste containers

Electricity

Source

Electricity is provided to households in Fadlo Wakim through the camp network from a 1,000KVA transformer located along the main street bordering Ain el Helwe Camp in Sector 5 (see figure 25). The transformer and the main electricity network were installed by the SC through financial contributions from dwellers in sector 5 of the camp and the AA.

Electricity is provided every other six hours, as per the EDL system of regular cut-offs in the surrounding area. Few households have subscribed in private generators service for an exchange of a monthly amount of 70,000 LBP (46.7 USD) per 5 Amperes.

Network Implementation

Considering Fadlo Wakim to be part of the Fifth Sector of Ain el Helwe Camp, the SC included the AA in its electricity provision plan. Two transformers (1,000 and 250KVA) were installed by the PLO for this purpose, one of which is used to provide electricity in the AA. In 1987, the SC collected additional financial contributions from households in Fadlo Wakim and Sector 5 to establish the main electricity network and connect it to a number of distribution boards. Dwellers continued the work to connect cables from the distribution boards to their houses. Each household is supplied with 10 to 15 Amperes.

Operation and Cost Recovery

The electricity network in Fadlo Wakim is managed by the SC under the wider structure of the PC in Ain el Helwe Camp. Workers hired by the SC carry out maintenance works to the main electricity network in the AA. Dwellers do not pay consumption bills to EDL.

Repairs

Repairs to the main electricity network are usually carried out by the SC through financial contributions from dwellers in Sector 5 and Fadlo Wakim. For large-scale repairs and renewals, the SC coordinates with the PC in the camp to contact supportive stakeholders such as the PLO or the Hariri Foundation in Saida.

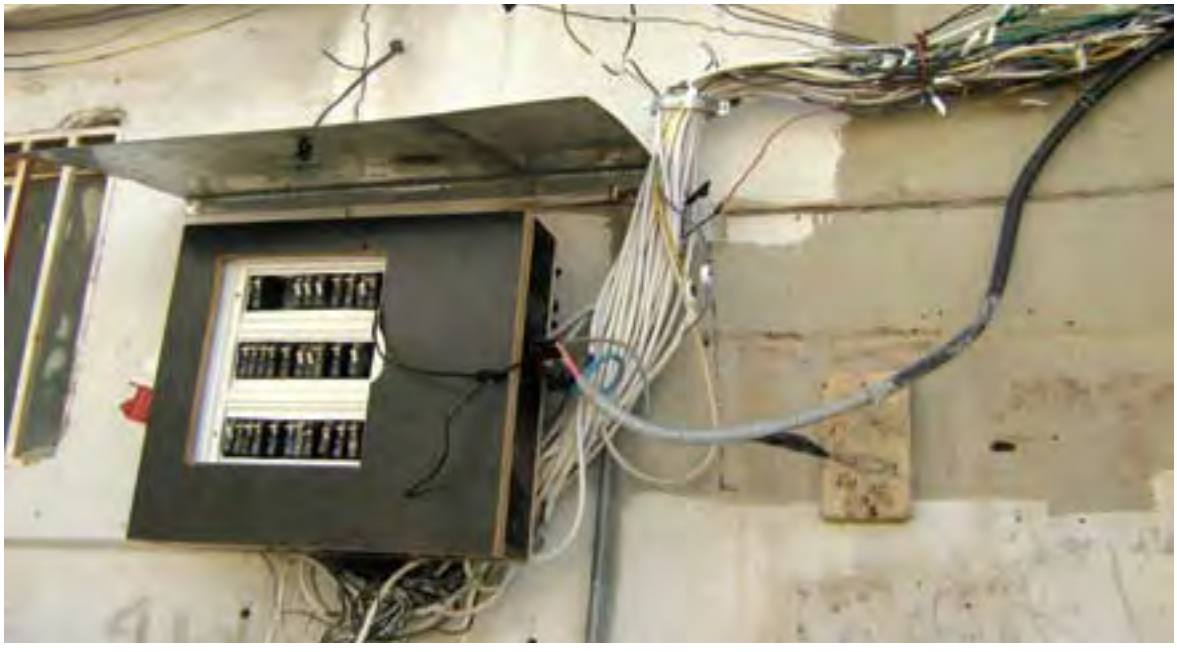
Problems

Problems in electricity network in Fadlo Wakim are mostly related to:

- Repetitive damages to the transformer and frequent cut-offs due to over-load.
- Unshielded old and loose cables that reduce safety and electric conductivity.

Needs

Representatives of the local community expressed the need for renewing the electricity network in Fadlo Wakim and installing a transformer for use in the AA.



Organized electricity distribution by the SC in Fadlo Wakim

Road Networks

Current State

The road network in the AA of Fadlo Wakim consists of narrow alleys between the houses. Most roads are paved with concrete layers but are damaged and in need of rehabilitation. One main asphalted road exists along the south-eastern boundary of the camp and separates Fadlo Wakim from the AAs of Hay el Sohoun and Jabal el Halib. Roads lack storm drains, street lighting and sidewalks. In winter, sewage water mixes with rain water and fills the holes in the roads

Implementation

Alleys are partially covered by concrete layers poured by dwellers in front of their houses. The main road bypassing Fadlo Wakim was asphalted by UNRWA, since it constitutes part of the road network surrounding the camp (see figure 25). UNRWA implemented a storm drain at the intersection to this road and the entrance of Fadlo Wakim to drain rain water flowing from the higher Jabal el Halib AA (see figure 25). At the time of the field visits, the drain was completely blocked.

Repairs

No stakeholders carry out repair works to the road network in Fadlo Wakim. For repairs, dwellers prepare a concrete mix and cover the holes that are in front of their houses.

Problems and Needs

The main problem in this sector is the lack of properly paved roads in addition to the flooding of sewage and rain water due to the lack of a storm drainage system. Rain water from the higher AA of Jabal el Halib mixes with sand and gravel and floods to Fadlo Wakim. The only storm drain installed by UNRWA at the entrance of Fadlo Wakim is blocked and insufficient to solve this problem. Roads in Fadlo Wakim need paving, rehabilitation and the installation of storm drains and street lighting.

One water drain (blocked) was installed by UNRWA at the entrance to Fadlo Wakim

Priorities for Intervention

Intervention priorities in basic urban services in Fadlo Wakim were identified by representatives of the local community, in descending order of importance, as follows:

1. Establishing a developed sewage network; rehabilitating roads and installing storm drains to prevent flooding of sewage and rain water and mixing with the water network.
2. Establishing a new adequate water network.
3. Renewing the electricity network and providing a transformer in the AA.
4. Placing covered plastic containers for solid waste collection in suitable locations away from the residential areas of the AA.

Hay el Sohoun

Adjacent Area Profile

Geographic Location

Hay el Sohoun is located south-east of Ain el Helwe Camp within the municipal boundaries of Darb el Sim. It is surrounded by the AA of Jabal el Halib from the south, the AA of Fadlo Wakim and part of the camp from the west, and Darb el Sim village from the east. From the north, the area is surrounded by part of the camp and of Darb el Sim village (see figure 26). Geographically, Hay el Sohoun constitutes a continuation of the AA of Jabal el Halib. However, it is locally considered part of Sector 2 of Ain el Helwe Camp.

Demography

Hay el Sohoun is inhabited by a majority of Palestinian families. According to representatives of the local community, a total of 150 households (795 dwellers) live in the area, more than half of them own their properties.

History and Growth

Hay el Sohoun was formed and developed as part of Jabal el Halib AA, the two areas share the same history (refer to the Adjacent Area Profile of Jabal el Halib p.177).

Land Ownership

The patterns of ownership in Hay el Sohoun is similar to those in the AA of Jabal el Halib (refer to the Adjacent Area Profile of Jabal el Halib p.177).

Living Environment

The AA of Hay el Sohoun is mostly composed of 4 story-high concrete buildings and some single story houses. Roads vary from main streets to narrow paths between the buildings. Due to long narrow roads, lighting and ventilation conditions in Hay el Sohoun is of particular concern.

A general view from Hay el Sohoun AA

Local Governance of Basic Urban Services

Local Organizational Structure

Hay el Sohoun is locally considered as an integral part of Ain el Helwe Camp. The PC in Ain el Helwe Camp has included the AA within Sector 2 of the camp. At the local level, the Sector Committee (SC) of Sector 2 manages Hay el Sohoun under the structure of the camp PC. The SC is represented in the PC of the camp by the head of the committee and includes four members.

In addition, a locally formed Neighborhood Committee (NC) assists the SC in its works and conveys dwellers' needs in basic urban services. In case of problems in the BUS sectors, dwellers and the NC resort to the SC, which discusses dwellers' concerns and needs in periodic meetings with the PC in Ain el Helwe Camp.

Financial Resources

The SC has initiated a sector fund fed through monthly contributions of 3,000 LBP (2 USD) per household in Sector 2 of the camp and the AA. Money from this fund is used for small scale repairs and renewals mainly in the sewage and electricity networks. Together with dwellers, the PLO has contributed to upgrading and renewing the electricity network in Hay el Sohoun.

Figure 26: *Location of Hay el Sohoun AA around Ain el Helwe Camp*

Water Provision

Water Source

Water is provided in Hay el Sohoun from a well that was established by UNICEF in the AA in 1987. An under-ground steel network was implemented in the AA by the Popular Front for the Liberation of Palestine – General Command (PFLP-GC), a Palestinian political faction active in the camp. This well is known by the name of the PFLP-GC, which owned the land in which the well was established. The well is used to provide water to the camp as well. Water is distributed from a collective tank to the network and directly to houses, without the use of collective manifolds.

Network Implementation

Initially, houses in Hay el Sohoun were connected to the urban network of Darb el Sim and used to pay relevant fees; this network was destroyed during the 1982 Israeli invasion of Lebanon. Another main network was established by the PFLP-GC, which also built a water tower and installed a pumping station in the AA. Dwellers used their financial resources and technical skills to connect their houses to this network.

Operation

The water station is managed by the PC in the camp. UNRWA covers the fees of fuel for operating the pumping generator in case of electricity cut-offs. The network in Hay el Sohoun is maintained by the SC, using the sector fund and by dwellers.

Repairs

In case of damages to the water network, dwellers carry out the necessary repair works. In case of large-scale repairs in the main network, dwellers resort to the SC. The latter uses the sector fund or resort to the camp or UNRWA for additional support. The PC in the camp usually secures financial assistance from the PLO. After the 2006 Israeli war on Lebanon, UNRWA repaired the main network from the well to the water tower since it feeds parts of the camp, and contributed an amount of 1,000 USD to the PC for additional repairs.

Quantity of Water

According to representatives of the local community, the quantity of water is not sufficient in Hay el Sohoun. This is mainly due to electricity regular cut-offs. Dwellers use individual pumps to drive water to private 1m³ tanks on the roofs. Around 20 percent of households have concrete tanks at the ground level of their houses.

Quality of Water

Water in Hay el Sohoun is used for cooking and service. Dwellers generally do not use it for drinking since they believe it is contaminated by the corroded damaged network. They associate the use of this water with some diseases, such as infections and kidney diseases. Dwellers who can afford buy potable water with a total cost of 50,000 to 70,000 LBP per month (33.3 to 46.7 USD), according to the dwellers interviewed.

Main Problems

According to representatives of the local community, main problems in water provision in Hay el Sohoun are:

- Inadequate and inefficient network due to the unorganized and ad-hoc connections by dwellers.
- Poor water quality due to the corroded and damaged pipes, which causes mixing with sewage and rain water.
- Low capacity of the pumping generator (60KV).
- Lack of regular maintenance to the network in the AA.

Needs

According to representatives of the local community, there is a need for replacing the steel pipes with PVC ones and installing covered house manifolds to prevent informal connection.

A study that denotes the current layout of the water network in the AA and suggested interventions was developed by the Neighborhood Committee (NC) in Hay el Sohoun and presented in Annex 4 of the report.

Water provision in Hay el Sohoun is compromised by the ad-hoc electricity connections (Note partially repaired cables)

Sewerage

Method and Implementation

Houses in Hay el Sohoun are informally connected to the main sewage network of Ain el Helwe Camp. Dwellers have individually hooked to this network using their own financial resources and technical skills. The sewage lines are connected to a total number of 12 manholes, some installed by the PLO in the AA. Before this network, households used septic tanks for sewage disposal; some of which are still used till today.

Operation and Maintenance

There is no structure for maintaining the sewage network in Hay el Sohoun. In case of blocked pipes and manholes, dwellers contact UNRWA or the PC to send workers.

Repairs

Generally, dwellers individually or collectively contribute financial resources to repair damages in the sewage network and septic tanks or to hire workers for this end. In case of large-scale repairs, dwellers resort the SC which provides financial contributions from the sector fund or the PLO.

Problems

Problems related to the sewerage in Hay el Sohoun are summarized by the following:

- Over-flooding due to under-sized pipes.
- Mixing of sewage and water networks due to the damaged and broken pipes.
- Inadequate old network.
- Increased risks to public health and pollution of water sources due to the use of septic tanks.

Needs

Representatives of the local community expressed the need to renew the network and install manholes every 30 m with steel covers. In addition, the implementation of a sewage network that replaces existing septic tanks is needed.

A study that denotes the current layout of the sewage network in the AA and proposed interventions was developed by the Neighborhood Committee (NC) in Hay el Sohoun and presented in Annex 4 of the report.

Partially exposed networks in Hay el Sohoun cause potential water contamination by sewage

Solid Waste Management

Applied Method

Solid waste collection in Hay el Sohoun is provided since 2007 by UNRWA, free of charge. Dwellers and the SC have resorted to UNRWA repetitively and presented a formal letter to the CSO requesting UNRWA intervention in solid waste collection in the AA. Six covered plastic containers were placed by UNRWA in the AA; UNRWA collects wastes using a truck and transports them to UNRWA collection points in the camp. No workers collect garbage bags from the alleys between the houses or sweep the roads.

Before 2007, a private solid waste collection service was provided. Dwellers used to pay a monthly fee of 3,000 LBP (2 USD) per household for a private service provider to collect waste.

Problems

According to representatives of the local community, the main problem is related to the insufficient number and capacity of containers in the AA.

Needs

Communicated needs are related to increasing the capacity or the number of solid waste containers and distributing them efficiently in the AA.

Electricity

Source

Electricity is provided in Hay el Sohoun through a network managed by the Sector Committee (SC) under the wider umbrella of the PC in the camp. This network was initially installed by EDL prior to the civil war. Electricity is provided to households from a 400KVA transformer located in the AA.

Electricity is provided every other six hours, as per the EDL system of regular cut-offs in the surrounding area. As a result, some dwellers subscribe in private generator services in exchange for a monthly amount of 70,000 LBP (46.7 USD) per 5 Amperes.

Network Implementation

Prior to the civil war, EDL implemented the main electricity network in Hay el Sohoun and connected it to house meters. The presence of EDL on ground in terms of bill collections, maintenance and repairs has however stopped during the years of the civil war. Dwellers removed EDL meters and hooked directly to the electricity poles.

In 2003, the SC coordinated with the PC in Ain el Helwe to organize electricity provision in Hay el Sohoun. The PC contacted EDL to (informally) install a transformer, at a cost of 5,000 USD shared by dwellers and the PLO. The SC replaced the old EDL network by a new one that connected houses to a number of distribution boards. The SC collected contributions of 50,000 LBP (33.3 USD) from each household for this purpose.

Operation and Cost Recovery

The electricity network in Hay el Sohoun is managed by the SC under the wider structure of the PC in Ain el Helwe Camp. The SC uses money from the sector fund or the PLO for maintenance works. Dwellers do not pay consumption bills to EDL.

Repairs

Repairs to the network are usually carried by the SC through hiring technicians. The SC collects costs from dwellers or coordinates with the PC in Ain el Helwe to secure additional funds from the PLO.

Problems

According to representatives of the local community, electricity in Hay el Sohoun suffers from these main problems:

- Shortage in supply due to over-load and insufficient transformer capacity.
- Over-demand on the network, especially that electricity from the network is connected to a technical institute located in the AA, which consumes considerable amount of electricity.
- Regular electricity cut-offs.

Needs

Representatives of the local community expressed the need for an additional (500KVA) transformer to respond to the overall need in the AA. In addition, the main and secondary connections need to be renewed.

Electricity meters initially installed by EDL were replaced with direct connections to electric distribution boards by the SC in Hay el Sohoun

Basic repair and connection methods

Road Networks

Current State

The road network in the AA of Hay el Sohoun consists of main streets and narrow paths between the houses. Roads are in bad condition and in need of rehabilitation. Most roads lack storm drains and sidewalks. In winter, sewage mixes with rain water and fills the holes in the roads. Street lighting was installed by dwellers along the main road of Hay el Sohoun.

Implementation

Roads were asphalted before 1980 by the Municipality of Darb el Sim. Dwellers paved the roads in front of their houses with concrete layers.

After the end of the Israeli 2006 war on Lebanon, the SC installed five street lamps and two projectors using money from the sector fund. Dwellers and the SC are planning to extend this initiative in the future.

Repairs

No stakeholders carry out repair works to the road network in Hay el Sohoun.

Problems and Needs

Representatives of the local community expressed the need to rehabilitate and asphalt all roads in Hay el Sohoun. According to the SC, the main road in the AA needs re-asphalting. Installing storm drains and additional street lighting are also needed.

A study that denotes the current layout of the main road in the AA and the required asphalting works was developed by the Neighborhood Committee (NC) in Hay el Sohoun and presented in Annex 4 of the report.

Most roads in Hay el Sohoun are in need of rehabilitation and asphalting, taking into consideration the condition of the existing infrastructure networks

Priorities for Intervention

Intervention priorities in basic urban services in Hay el Sohoun were identified by representatives of the local community, in descending order of importance, as follows:

1. Rehabilitating and upgrading the sewage network.
2. Rehabilitating and upgrading the water network.
3. Asphalting and paving roads and implementing a storm drainage system.
4. Increasing electricity provision through installing a new transformer and renewing the network.

Jabal el Halib

Adjacent Area Profile

Geographic Location

The AA of Jabal el Halib is located on a hill south-east of Ain el Helwe Camp. Administratively, it is located within the municipal boundaries of Darb el Sim. Jabal el Halib is surrounded by the AA of Hay el Sohoun from the north, Ain el Helwe Camp from the west, and Darb el Sim Village from the east and the south (see figure 27).

Land Ownership

Ownership in Jabal el Halib is mixed. Some Palestinian families have bought the lands and houses they live in from Lebanese residents in the early 70s, though they did not officially register their properties in the Land Registry. Other families have built their houses on land that still belongs to Lebanese owners from Darb el Sim village and to Darb el Sim Municipality.

Demography

Jabal el Halib is inhabited by a majority of Palestinian families and some Syrian families. According to representatives of the local community, a total of 350 households (1,855 dwellers) live in the area, around half of them own their properties. It should be noted that population figures in Jabal el Halib vary from one source to the other. According to DRC (2005), the number of households in Jabal el Halib is 450 (2,430 dwellers). According to PU & NRC (2009), the number of households is 235 (999 dwellers).

Living Environment

The AA of Jabal el Halib is composed of concrete buildings with an average height of four stories. Some single story houses with corrugated iron (zinco) roofs exist as well. Roads vary from main streets to narrow paths between the buildings, compromising lighting and ventilation conditions along the narrower roads. According to the assessment carried by PU and NRC (2009), the shelter situation is deplorable and the hygiene in some of the houses is worrying.

History and Growth

Jabal el Halib was initially inhabited by Lebanese families who were employed in the Army. During the 1970s, they started selling their houses to Palestinian families, who were mostly from Ain el Helwe Camp. The area was mainly developed during the early 1990s with the end of the civil war. Looking for security, most Palestinian families moved from other camps and areas in the South and build new houses in Jabal el Halib.

A general view from Jabal el Halib AA

Local Governance of Basic Urban Services

Local Organizational Structure

At the local level, the AA of Jabal el Halib is managed by a separate Popular Committee (PC) that is represented in the PC of Ain el Helwe Camp. The PC in Jabal el Halib was formed through consensus among dwellers to include 12 to 14 members. It mainly manages the electricity network under the wider umbrella of the PC in the camp. Dwellers depend on individual and private initiatives to access and maintain basic urban services and discuss their problems with the local PC. The local PC representative attends periodic meetings of the PC in the camp and communicates dwellers' concerns and needs.

Financial Resources

The PC in Jabal el Halib has initiated a local fund, fed through monthly contributions collected from dwellers. Each household pays a monthly amount of 2,000 to 3,000 LBP (1.3 to 2 USD). Money from this fund is used for small scale repairs and renewals mainly in the electricity network. It is common for the local PC to exempt the poorest dwellers from paying. Together with dwellers, the PLO has contributed to upgrading and renewing the electricity network in Jabal el Halib.

Figure 27: *Location of Jabal el Halib AA around Ain el Helwe Camp*

Water Provision

Water Source

Water is provided in Jabal el Halib from two main sources. The first is a well that was established by the PLO in 1986 in the camp, which provides water to the camp as well. Dwellers in Jabal el Halib informally connected their houses to the camp network fed from this source. The second source comprises three collective wells, which were established by dwellers in the AA of Jabal el Halib (PU & NRC, 2009). Dwellers connected their houses directly to these wells, mostly using above-ground metal pipes. Water from both sources is distributed directly to the network without being collected in collective water tanks.

As part of its WATSAN project, PU is planning to implement a new water network including collective manifolds and house connections in Jabal el Halib. Works are supposed to start in 2010.

Network Implementation

Up until 1982, houses in Jabal el Halib were connected to the urban network in Darb el Sim and used to pay relevant fees. This network was destroyed during the 1982 Israeli invasion of South Lebanon. As an alternative, dwellers resorted to digging wells in the area and using the old network to connect their houses to the wells. Other dwellers started to informally connect their houses to the camp network established by UNICEF.

Operation

The water station is managed by the PC in the camp. However, no stakeholder or institution manages the network in Jabal el Halib. Dwellers individually carry out maintenance works to the network.

Repairs

In case of damages to the water network, dwellers implement the necessary repair works. The network however, has not been subjected to any major repairs since its installation.

Quantity of Water

According to representatives of the local community, the quantity of water is not sufficient in Jabal el Halib. This is due to the low pressure of water since most houses are located on a hill while water sources are located in the camp or other lower areas. Dwellers use individual pumps to drive water to private 1m³ tanks on the roofs. Moreover, electricity cut-offs prevent dwellers from operating the well generators and individual pumps.

Quality of Water

Water in Jabal el Halib is used for cooking and service. Dwellers generally do not use it for drinking since they believe it is contaminated by the corroded and exposed network pipes. As an alternative, dwellers buy potable water with a total cost, according to residents interviewed, of 50,000 to 70,000 LBP (33.3 to 46.7 USD) per month.

According to the assessment undertaken by PU and NRC (2009), wells in Jabal el Halib showed contamination. The water quality is further affected by the above-ground exposed pipes, mainly in the southern part of Jabal el Halib.

Main Problems

According to representatives of the local community, the main problems in water provision in Jabal el Halib are:

- Inadequate and inefficient network due to the unorganized and ad-hoc connections by dwellers.
- Low water pressure, since houses are higher than water sources.
- Absence of testing, follow-up and maintenance of collective wells in the AA.
- Poor water quality due to the corroded and damaged pipes. Since most pipes were installed above ground, water mixes with sewage and rain water during winter.

Above-ground water pipes connected by dwellers in Jabal el Halib

Needs

According to representatives of the local community, there is a need for establishing an organized and developed water network and a new well in Jabal el Halib. This should be accompanied with the identification of an institution that would manage the operation, maintenance, repair and quality control of water. In order to improve the quantity of water, there is a need to establish a collective water tank or water tower and to allocate an electricity transformer for the operation of the water stations.

Sewerage

Method and Implementation

Houses located along the boundaries of the camp are informally connected to the camp network established by the Palestinian Red Crescent in 1986. Dwellers have individually connected to this network using their own financial resources and technical skills. In the other areas located towards the south and along the fringes of Jabal el Halib, no sewage network exists. Instead, dwellers depend on private septic tanks or connect their sewage to storm water channels. Most pipes are installed above ground. In some cases, dwellers undertake collective action to implement private sewage network. For example in 1990, one dweller collected money from a group of around 15 households and hired workers to install a main sewage line and house connections.

PU has prepared a project to rehabilitate and upgrade sewage networks in Jabal el Halib, which will start in 2010. At the time of data collection, works were delayed since land owners and the Municipality of Darb el Sim did not give their approval. In response, dwellers have exerted pressure on the municipality to allow the project. According to representatives of the local community, the Municipality of Darb el Sim initiated works in 2009 to connect houses in the village to the main sewage line that passes by Jabal el Halib. Dwellers opposed this initiative and stopped works for around 10 days. As a result, Darb el Sim Municipality resorted to Saida Municipality; the latter met with dwellers in Jabal el Halib and promised to facilitate the PU WATSAN project in the AA and resolved the problem.

Operation and Maintenance

There is no organized structure for carrying maintenance works to the sewage network in Jabal el Halib. In case of blocked pipes, dwellers individually or collectively pay to hire private sewage tankers or a worker from the camp.

For houses that use septic tanks for sewage disposal, dwellers hire private tankers to empty the septic tanks or resort to digging new ones when the old ones are full.

Repairs

Dwellers, individually or collectively, carry out repair works to the sewage network and septic tanks or hire workers for this end. In case of large-scale repairs, dwellers discuss the needs with the PC in Jabal el Halib. In 2004, the local PC collected money from dwellers and conducted repairs and renewals to the sewage network in part of the AA.

Problems

Problems related to the sewage network in Jabal el Halib are summarized by the following:

- Over-flooding due to the under-sized and damaged network.
- Flooding of sewage and rain water from surrounding areas in Darb el Sim to Jabal el Halib.
- Mixing of sewage and water networks since pipes are damaged and broken.
- Inadequate old network.

Problems related to private septic tanks are summarized as follows:

- Mixing with water networks.
- Infiltration to ground and wells.
- Pollution and unpleasant smells.

Needs

Representatives of the local community expressed the urgent need to establish a comprehensive and adequate sewage network that connects to all houses in Jabal el Halib.

Exposed septic tanks in Jabal el Halib

Solid Waste Management

Applied Method

Solid waste collection in Jabal el Halib is provided through a combination of a private service and UNRWA intervention. Dwellers and the PC in Jabal el Halib have resorted to UNRWA repetitively and presented a formal letter to the CSO to request UNRWA intervention in solid waste collection in the AA. After negotiations, an agreement was reached in 2009 by which UNRWA sends its truck to collect solid waste from two main roads in Jabal el Halib. Dwellers carry their garbage bags to a number of plastic covered containers placed by UNRWA along these streets. According to representatives of the local community, this service benefits around 50 households in Jabal el Halib, although they requested it to reach all households in their letter. According to UNRWA CSO, the state of roads in Jabal el Halib hinders access of machineries and workers for solid waste collection.

In the areas excluded from this service in Jabal el Halib, dwellers have appointed a worker from the AA to collect solid waste. The worker collects plastic garbage bags placed by dwellers in front of their houses manually and throw them in nearby UNRWA containers. Dwellers pay a monthly fee of 5,000 LBP (3.3 USD) per household for this service.

Problems

Problems related to solid waste management in Jabal el Halib are mainly related to:

- The lack of commitment by an organized institution to manage and provide this service to all houses in the AA.
- Insufficient number of containers to respond to dwellers needs. It should be mentioned that some factions in Jabal el Halib refused the placement of containers in the AA due to security reasons.

Needs

Communicated needs are basically related to developing a sustainable and efficient strategy for solid waste management in Jabal el Halib. Under the current state of the service, representatives of the local community expressed the need for a pick-up truck or dumper to facilitate solid waste collection and an increased number of containers.

Most houses in Jabal el Halib are subscribed to private solid waste collection service

Electricity

Source

Electricity is provided in Jabal el Halib through a network managed by the local PC under the wider umbrella of the PC in Ain el Helwe Camp, which was initially installed by EDL. Electricity is provided to households from two transformers (500KVA each) installed in an electricity room that is located in the AA.

Electricity is provided every other six hours, as per the EDL system of regular cut-offs in the surrounding area.

Network Implementation

Initially, the network was established prior to the civil war by EDL, which implemented main connections and individual meters in Jabal el Halib. An electricity room with one 500KVA transformer was established by the PLO. As in Hay el Sohoun, the presence of EDL on ground in terms of bill collections, maintenance and repairs has stopped during the years of the civil war. Dwellers removed installed meters and hooked to the electricity poles. An additional 250KVA transformer was installed in Jabal el Halib by the PLO through contributions collected from dwellers.

In 2003, the local PC coordinated with the PC in Ain el Helwe Camp to organize electricity provision in Jabal el Halib. A 500KVA transformer was installed by the PLO to replace the 250KVA transformer. The cost was shared by dwellers in the AA and the PLO. The old EDL network was replaced by the local PC with a new one that connected houses to a number of distribution boards distributed in the AA. The PC collected contributions from 50,000 to 100,000 LBP (33.3 to 66.7 USD) from each household and the PLO donated 1,000 USD for this end. A total amount of 5,500 USD has been paid to the contractor this far, the rest (2,000 USD) is still to be paid.

Operation and Cost Recovery

Electricity network in Jabal el Halib is managed by the local PC under the wider structure of the PC in Ain el Helwe Camp. Coordination and negotiations with EDL are done through a member appointed by the PC in Ain el Helwe Camp for this end. Under this structure, maintenance works to the electricity network in Jabal el Halib are carried out by four workers employed by the camp PC. The local PC uses money from the local fund to cover maintenance costs. Dwellers do not pay consumption bills to EDL.

Repairs

Repairs to the network are usually carried by the local PC using workers from the PC in the camp (see previous). The PC in Jabal el Halib collects costs from dwellers or resorts to the PC in Ain el Helwe to secure additional funds from the PLO.

Problems

According to representatives of the local community, electricity provision in Jabal el Halib suffers from:

- Repetitive damages to the transformers especially in winter.
- Unshielded cables, which reduces efficiency and reliability of the network.
- Informal hooking to the network.
- Regular electricity cut-offs.

Needs

Representatives of the local community expressed the need for an additional transformer to respond to dwellers needs. The main and secondary connections need to be replaced by shielded cables for safer and better conductivity and to prevent hooking to the network.

Intertwined electricity and water connections in Jabal el Halib

Road Networks

Current State

The road network in the AA of Jabal el Halib consists of main streets and narrow paths between the houses. Roads are in bad condition; they are unclean, full of holes and in need of rehabilitation. Most roads lack storm drain and sidewalks. In winter, sewage water mixes with rain water and fills the holes in the roads. Lighting has been installed privately along the streets of Jabal el Halib.

Implementation

Roads were asphalted before 1982 by the Municipality of Darb el Sim. The main road leading to Jabal el Halib was re-asphalted in 2000 by Ghassan Kanafani NGO to facilitate the entrance of school busses.

The PC in Jabal el Halib has installed 22 street lamps in 2009 using money from the local fund.

Repairs

No stakeholders carry out repair works to the road network in Jabal el Halib.

Problems and Needs

Representatives of the local community expressed the need to rehabilitate and asphalt all roads in Jabal el Halib. Installing storm drains and additional street lighting (20 lamps) is also needed.

In addition to rehabilitation, roads in Jabal el Halib need a drainage system that suits the strong sloping of the AA

Priorities for Intervention

Intervention priorities in basic urban services in Jabal el Halib were identified by representatives of the local community, starting with the most urgent, as follows:

1. Establishing an organized and comprehensive strategy for water provision.
2. Implementing a sound sewage network that connects to all houses.
3. Asphalting and paving roads and implementing a storm drainage system.
4. Developing a sustainable and efficient strategy for solid waste management.

Sekke

Adjacent Area Profile

Location and Boundaries

Sekke is located north-west of Ain el Helwe Camp. Administratively, it lies within the municipal boundaries of Saida. Sekke is surrounded by parts of Ain el Helwe Camp from the south, Taamir and the AAs of Ouzo and Tawari from the east, and mostly agricultural lands in Saida from the north and west (see figure 28). An old unused railway separates Sekke, which derives its name from the railway, from the surrounding area of Saida to the west. Given its large area, Sekke is locally divided into four neighborhoods.

History and Growth

Sekke was initially created in 1976, when Palestinian families relocated from Tal el Zaatar, Nabateyeh and other camps in the South for security reasons. The area developed from an agricultural land to a densely inhabited settlement during the civil war. The AA of Sekke was originally larger in area; in the early 1990s, the Lebanese Government paid compensations to some households to relocate and many families returned to their original camps mainly in Tyr. According to the SC in Sekke, the original number of households prior to 1990 was around 1,300.

Demography

Sekke is inhabited by a majority of Palestinian dwellers and some 60 Lebanese, Gypsy and Syrian households. According to representatives of the local community, the total number of households in Sekke ranges from 460 to 485 (2,438 to 2,571 dwellers). This number varies according to different sources. According to DRC (2005), a total of 215 Palestinian households (1,160 dwellers) live in Sekke. PU & NRC (2009) states that the number of Palestinian households in Sekke is 410 (1,741 dwellers).

Ownership

The land is public and belongs to the Ministry of Transport.

Living Environment

The AA of Sekke is composed of single-story and double-story concrete houses distributed along main streets and alleys. At the time of the field observations, floods of sewage and rain water were noticed on the roads. Most houses are covered with corrugated iron (zinco) roofs. Some houses have no separation walls for toilets, which creates problems in public health. PU has initiated the rehabilitation of shelters it identified to be in need of urgent intervention. However, zinco roofs could not be replaced. According to representatives of the local community, other shelters are still in need of rehabilitation.

General views from Sekke AA

Local Organizational Structure

At the local level, the AA of Sekke constitutes one sector that is followed by Ain el Helwe Camp. It is managed by a Sector Committee (SC) formed in 1978 under the wider structure of the PC in the camp and is represented by the head of the committee. The SC in Sekke was formed through consensus among dwellers to include 11 members. These members represent the four main neighborhoods in Sekke. The committee names itself the Committee of Tal el Zaatar; however, it represents dwellers in Sekke who were displaced from other camps as well. Dwellers discuss problems in basic urban services with the SC, which discusses these concerns in periodic meetings with the PC in the camp. Under the wider umbrella of the camp PC, the SC manages water provision and electricity in Sekke.

Financial Resources

The SC in Sekke has initiated a sector fund fed through monthly contributions of 3,000 LBP (2 USD) per household. Money from this fund is used for maintaining water and electricity networks. For repairs and renewals mainly to the electricity network, the SC collects additional financial contributions from dwellers. The SC appoints two workers from Sekke to carry general works in the AA; the monthly salaries of these workers are covered by the Municipality of Saida. However, the large area of Sekke requires the intervention of more workers.

Figure 28: *Location and key BUS in Sekke AA around Ain el Helwe Camp*

Basic Urban Services

Water Provision

Water Source

Water is provided in Sekke from a well that was recently established by the Popular Aid for Relief and Development (PARD), a local NGO, in 2006 in the AA (see figure 28). The project was funded by Human Serve International, a Canadian NGO, with the sum of 20,111 CAND (19,450 USD). Water is pumped from the water station directly to the network and to house connections, through underground steel pipes. No collective water tanks or collective manifolds exist. Around 30 houses in the neighboring area of Taamir, inhabited by a majority of Lebanese dwellers, were informally connected to this network through consensus with dwellers in the AA. The WA in Saida indicated that it installed a 2"steel pipe supplying water to Sekke, at the entrance to the AA by the Army checkpoint.

It should be noted that the PARD project has drastically improved dwellers' access to water in Sekke. Before this network was implemented, few households in Sekke informally connected their houses to a well in Taamir. These households provided connections to surrounding groups of four or five households. In many houses, water did not reach house connections as it was collected in barrels outside the houses.

Network Implementation

The complete water network (water station, main lines and house connections) were implemented by PARD. In terms of house connections, PARD extended the main network to individual manifolds installed at the entrance of each house. Dwellers connected 1/2" plastic pipes from these individual manifolds to inside the houses. Works started in 2006 and ended in 2008.

Operation

The operation and maintenance of the water network is under the responsibility of the SC in Sekke. For this purpose, the SC has appointed a dweller to operate the water station and carry out maintenance works to the network. The worker operates the pumping station for an average of six to eight hours a day. The SC pays him a monthly compensation of 50,000 LBP (33.3 USD); in cases of additional maintenance works, the SC pays him an extra equal amount. It also pays fuel costs to operate the water station in case of electricity cut-offs.

Quantity of Water

Some dwellers experience shortage in water due to weak water pressure in some areas in Sekke. Water is distributed two hours per day to each household. Most households have 1m³ plastic tanks on the roofs of the houses.

Quality of Water

Water in Sekke is used for drinking, cooking and services. Representatives of the local community expressed their satisfaction with the quality of water. Chlorination is done manually by the worker responsible for the operation of the station, since the chlorine pump that was installed by PARD is not yet operational. PARD trained this worker to operate the water station and add chlorine to the well. According to the assessment undertaken by PU and NRC (2009), no contamination was found in water in Sekke, especially after the implementation PU sewage rehabilitation project. Before that, contamination was shown in private tanks only, which indicated the mixing of water with sewage due to damaged sewage pipes (Ibid).

Main Problems

In general, representatives of the local community have expressed their satisfaction with water provision currently in Sekke. However, a number of problems still need to be addressed:

- Shortage of water due to the low pumping pressure. The SC explained that the pipe pumping water from the well has the same width (4") to that distributing water to houses. This results in low water pressure at pumping level.

Water in Sekke is directly distributed from the well to single house connections

- Insufficient provision to some houses located at the higher parts of Sekke. This is due to compromised pumping pressure given the difference in topographic level.
- Interrupted pumping from the well since there is no collective tank or water tower to collect pumped water. This process is time and money consuming.
- Lack of the SC financial resources which prevents it from employing a full-time water technician.

Repairs

Representatives of the local community explained that they do not have an organized system for carrying repair works to the water network yet, since no damages have occurred so far. The WA in Saida indicated that they do some repairs to the main line installed near the Army checkpoint in Sekke.

Needs

Representatives of the local community expressed the need for a partnering institution to manage the water sector in Sekke and to officially employ and adequately remunerate full-time workers. It should be noted that members of the SC expressed their desire to remain the supervising authority on this service. In addition, there is a need to construct a water tank/tower for the storage of water.

Sewerage

Method and Implementation

Most houses are connected to a network that was implemented by dwellers in 1976 and upgraded by PU in 2009. Initially, dwellers have benefitted of an old sewage pipe in Sekke, which was part of the municipal network. They started working collectively to hook their houses through a number of manholes to this network. Today, this network is still connected to the municipal network.

In 2008 – 2009 and to protect water from contamination, most parts of the sewage network was rehabilitated and upgraded by PU. PU installed new manholes and upgraded the main sewage lines in the area. Dwellers individually added new house connections from their houses to the manholes using plastic pipes. It should be noted that dwellers undertook these interventions without always coordinating with PU. As a result, some of the manholes were broken in order to accommodate for house connections.

A number of 16 households located along the western periphery of Sekke are not connected to the previously mentioned network. This is due to technical problems related to the location of the houses at a lower level to the sewage network. These houses discharge their sewage through open channels to the adjacent agricultural lands in Saida. The Municipality of Saida has undertaken an initiative to connect these houses to the urban network free of charge. It implemented an 8" PVC sewage main line and a collector at the western edge of Sekke near these houses; however, due to financial limitations and technical difficulties, dwellers have not been able to connect their houses to this line yet.

In addition, around 10 percent of the houses that were unable to connect to the sewage network use septic tanks for sewage disposal.

An example of water and sewage connections in Sekke

Operation and Maintenance

Maintenance works are generally carried individually or collectively by dwellers, using ad-hoc methods. In case of blocked manholes, dwellers resort to breaking them to allow for the flow of sewage.

Repairs

There is no structure for carrying repair works to the sewage network in Sekke. Dwellers implement small-scale repairs by themselves.

Problems

No major problems exist in the sector of sewerage in Sekke today, with the exception of the few houses that were not able to connect to the upgraded network.

Needs

Interviewed dwellers and SC members expressed the need to continue the initiative started by PU to connect all remaining houses in Sekke.

Solid Waste Management

Applied Method

A private service for solid waste collection covers around 135 households, representing less than third the population in Sekke. For the majority of households, there exists no method of solid waste collection. Dwellers carry their garbage bags to the surrounding municipal and UNRWA collection points.

A private service was initiated by a dweller in Sekke (the same worker responsible for water management) in 2006. The worker collects wastes manually from around 135 houses distributed along the four neighborhoods of Sekke. Each household pays a monthly subscription fee of 3,000 LBP (2 USD). Solid waste is collected four to five hours daily. Collected waste is thrown in the surrounding municipal containers located along the boundaries of the AA. The Municipality of Saida transports these wastes to Saida Dump.

Generally, there are no containers for solid waste collection in Sekke and dwellers place their waste in plastic bags. Representatives of the local community mentioned that PU has provided five metal waste containers in the area.

Problems

According to representatives of the local community, the main problems in the sector of solid waste management are related to:

- The lack of a developed and sustainable strategy for solid waste management in Sekke and absence of commitment by any institution.
- The presence of UNRWA collection point of solid waste near a residential area of Sekke, which causes bad odors and represents a risk to public health.

Needs

Communicated needs are basically related to developing a sustainable and efficient strategy for solid waste management in Sekke and defining an institution that is willing to commit to managing this service. In addition, representatives of the local community expressed the urgent need to find a solution to UNRWA collection point located in Sekke.

Electricity

Source

Electricity is provided to households in Sekke through a network managed by the SC under the wider umbrella of the PC in Ain el Helwe Camp from a 400KVA transformer located in the AA (see figure 28). The transformer and the main network were purchased and installed by the PC in the camp through dwellers' financial contributions. EDL informally helped installing the electricity network in the AA.

Electricity is provided every other six hours, as per EDL system of regular cut-offs in the surrounding area.

Network Implementation

The electricity network was organized by the PC in Ain el Helwe Camp in cooperation with the SC in Sekke. The SC collected 9,000 USD for the cost of a 400KVA transformer and main lines from dwellers, in installments paid over a period of three years. The PC resorted to political figures from a prominent political party in Saida to facilitate the installation of a transformer and main electricity lines. These politicians requested EDL to provide technical support in the implementation of the electricity network in Sekke. EDL installed the transformer (without an electricity station/room) and main lines connections with the help of workers from the local community. According to representatives of the local community, EDL workers installed the network in an informal way as a private service and received payments from the SC.

The installed network is similar in system to that in the camp; it is connected to a number of distribution boards in the AA instead of house meters. Dwellers individually connected their houses to the distribution boards using unshielded copper cables. The SC provides households with 5, 10 or 15 Amperes, depending on their needs

Operation and Cost Recovery

Electricity network in Sekke is managed by the SC under the wider structure of the PC in Ain el Helwe Camp. Workers hired by the SC carry maintenance works to the main network. Dwellers do not pay monthly bills to EDL.

Repairs

Repairs to the network are usually implemented by the SC in Sekke using the sector fund. For large-scale renewals, the SC coordinates with the PC in the camp to contact active political figures in the area; the political figures manage to carry EDL offices to implement renewals to the electricity network as a 'favor'. The SC collects contributions from dwellers to purchase required accessories and to pay workers.

Problems

Problems in electricity network in Sekke are mostly related to:

- Shortage in electricity supply due to insufficient transformer capacity.
- Unshielded secondary connections which are dangerous. A number of fatal accidents have occurred due to the contact of unshielded cables with corrugated iron roofs.
- The absence of an electricity room for the transformer, which increases damages to the latter.

Electricity is provided in Sekke through a transformer installed by the Camp PC using financial contributions collected from dwellers

Needs

Representatives of the local community expressed the need for an electricity room and additional (500KVA) transformer in the AA. The main and secondary connections, currently made of copper, need to be replaced with upsized shielded cables for safer and better conductivity.

Road Networks

Current State

The road network in the AA of Sekke consists of main streets and narrow alleys between the houses. Road widths vary from about 3m for main streets to 1m for alleys. Most roads are covered with concrete layers; some are in need of rehabilitation. Roads in Sekke lack storm drains, street lightings and sidewalks. In winter, sewage mixes with rain water and fills the holes in the roads.

Implementation

Some of the roads in Sekke were paved with concrete layer by PU after rehabilitating the sewage network. Dwellers usually cover parts of the roads in front of their houses with concrete mixes.

Repairs

No stakeholders carry out repair works to the road network in Sekke. For repairs, dwellers prepare a concrete mix and cover the holes that are in front of their houses. The SC in Sekke explained that they have discussed collective initiatives to rehabilitate roads in the area. However dwellers' limited financial capacities did not permit for such interventions.

Problems and Needs

The main problem in Sekke is the flooding of sewage and rain water in the roads. The rehabilitation and repairs of damaged roads might mitigate this problem. The main streets in the AA need asphalting or paving and the installation of storm drains and street lighting.

Basic drainage methods implemented by dwellers in Sekke to mitigate rain water flooding

Priorities for Intervention

Intervention priorities in basic urban services in Sekke were identified by representatives of the local community, starting with the most urgent, as follows:

1. Building a collective water tank to collect water pumped from the well.
2. Asphalting and paving roads and implementing storm drainage system.
3. Finding a solution to the presence of UNRWA collection point of solid waste in Sekke.
4. Providing an additional electricity transformer.
5. Connecting remaining households in Sekke to the sewage network recently upgraded by PU.

The internal alleys of Sekke

Tawari

Adjacent Area Profile

Geographic Location

Tawari is located north of Ain el Helwe Camp within the administrative boundaries of Saida. It is located in the middle of Taamir, which surrounds it from the north and the south. From the west, Tawari is separated from the AA of Sekke by the main street accessing Ain el Helwe Camp. From the east, it is separated from the AA of Baraksat by a main street (see figure 29).

Demography

Dwellers living in Tawari are comprised of Palestinian families in general. According to representatives of the local community, a total of 350 to 400 households (1,855 to 2,120 dwellers) live in Tawari. These numbers comply with DRC (2005), which estimates that around 350 households consisting of 1,800 dwellers live in the area.

History and Growth

Tawari was formed in 1948 with the arrival of Palestinian families displaced from their original villages in Palestine. It was named "Tawari" after the Arabic word for "emergency". The area was considered a camp, which housed the displaced families in tents.

It wasn't until 1949, when UNRWA rented the land of Ain el Helwe Camp that most families left Tawari to the newly established camp. Dwellers still refer to Tawari as the "Old Camp".

Tawari has mainly developed in 1956 with the additional arrival of Palestinian families affected by the earthquake that hit Lebanon at that time. Most families came from other Palestinian refugee camps in Lebanon mainly in the South (Ain el Helwe, Mieh Mieh and others). Families were allowed to build houses on this public land through support from a former Deputy in Saida. UNRWA used to provide basic urban services to dwellers in Tawari. These services have stopped in 1991, when some conflicts erupted in Tawari with the Lebanese Army Forces. As a result, the Army implemented the checkpoint that denotes access to Ain el Helwe Camp from Tawari.

Land Ownership

Tawari is located on public land, which was in most parts annexed to the adjacent Public Hospital in Saida.

Living Environment

The living environment in Tawari is negatively affected by the absence of active NGOs and social institutions. Houses in Tawari are distributed along narrow roads that require rehabilitation.

An internal view from Tawari

The main road that leads to Tawari and the Camp

Local Governance of Basic Urban Services

Local Organizational Structure

Tawari represents a unique case of AAs distributed around Ain el Helwe Camp. It witnesses the presence of many Islamic forces that are mainly affiliated to the Tahaluf PC in the camp. At the local level, Tawari is managed by an independent Popular Committee (PC) comprising 11 members. This committee was formed in the early 1990s to deal with security issues in Tawari, especially after the conflicts with the Lebanese Army Forces. It should be noted that given the compromised security situation in Tawari, the local PC has been dedicating most of its efforts to security issues. Less effort is dedicated by the local PC or other stakeholders in Tawari to managing and improving basic urban services.

For interventions in BUS, dwellers and the local PC resort to active stakeholders such as UNRWA, political figures in Saida, Saida Municipality or the two PCs in Ain el Helwe Camp. However, dwellers mainly depend on individual and collective actions to access BUS. The local PC in Tawari coordinates its works mainly with the Tahaluf affiliated PC in the camp and attends periodic meetings.

Financial Resources

The PC in Tawari has initiated a local fund, fed through monthly contributions collected from dwellers. Each household pays a monthly amount of 2,000 to 3,000 LBP (1.3 to 2 USD). Money from this fund is used for small scale repairs and renewals mainly in the electricity network. However, the collection of monthly contributions for the local fund is not regular.

Figure 29: *Location of Tawari AA around Ain el Helwe Camp*

Water Provision

Water Source

Water is provided in Tawari from two main sources. Most houses are informally connected to the water station that is under the authority of the WA in Saida outside the camp. Other houses are connected to a well more recently established by Badr NGO in the Safsaf neighborhood in the camp.

Network Implementation

Initially, most dwellers in Tawari were connected to the well established by PLO in 1980 that feeds Baraksat (refer to Water Provision in Baraksat for more details). Most dwellers were informally hooked to the main network established by UNICEF in the camp, which passes at the outskirts of Tawari. PLO helped dwellers to connect their houses to this network, using above-ground metal pipes. According to representatives of the local community, household connections in Tawari were done at the expenses of dwellers and in an ad-hoc manner. This network was subjected to huge damage during the civil war; it was renewed by the PLO in 1988. Other households informally connected their houses to the urban network in Saida.

An elevated private water tank to cope with the high built-up density in Tawari

According to the local PC, the Municipality of Saida installed a water network in the Villat (a neighboring area inhabited by Lebanese families) in 2007 and cut the Tawari area from the urban network. The WA in Saida took over the management of the water station and distributed water from the well to other areas. In response, dwellers have individually and informally hooked their houses to the network in Villat.

When water from the previously mentioned sources became insufficient to cover the needs in Tawari, dwellers resorted to various active stakeholders in Ain el Helwe Camp to secure another source of water. An additional well was dug in the camp by Badr local NGO in the early 1990s. Dwellers carried out works to connect their houses to this well.
In 2005, the WA in Saida was implementing a project in Taamir area, and due to pressure from local political leaders, two polyethylene lines (2" and 1.5") were installed to supply Tawari with water.

Operation

There exists no structure for managing the water network in Tawari, which is mainly installed through informal hooking.

Repairs

In case of damages to the water network in Tawari, dwellers carry out repair works themselves or hire technicians at their own expense.

Quantity of Water

According to representatives of the local community, water is still insufficient to respond to the needs of dwellers in Tawari. Most dwellers have 1m³ plastic tanks installed on the roofs of their houses. As informed by interviewed dwellers, The Higher Relief Council (HRC) have conducted an assessment in Tawari and donated around 380 private plastic tanks to dwellers in 2007.

Quality of Water

Water accessed from the urban network in Villat is used by dwellers in Tawari for drinking, cooking and services. Representatives of the local community expressed their satisfaction with the quality of water. Water accessed through the old network rehabilitated by the PLO is used for cooking and services. Dwellers do not use it for drinking since pipes are corroded and damaged, which affects the quality of water. In this case, dwellers usually buy potable water.

Main Problems

Most problems of water provision in Tawari are related to the absence of an organized method for water provision. The main issues are:

- The absence of an institution that carries out operational, maintenance or repair works to the network.
- The absence of a reliable and sustainable source for water provision.
- The chaotic and ad-hoc character of the network. The network was installed through sporadic individual initiatives neglecting environmental standards and correct connection methods. This compromises the quality and quantity of water.
- Mixing with sewage since most pipes are damaged and corroded, which causes contamination.

Needs

According to representatives of the local community, Tawari is in urgent need for a planned comprehensive strategy that organizes water provision in the area. A water source and a new network need to be connected to all houses in the AA.

Above ground house connections installed by dwellers in Tawari to access water

Sewerage

Method and Implementation

Houses in Tawari are connected to an old sewage network that was implemented by UNRWA prior to 1980. The main sewage line consists of a 6" concrete pipe. Dwellers individually connected their houses using their financial and technical resources. This network ultimately connects to Saida urban network.

Operation and Maintenance

There is no organized structure for carrying maintenance works to the sewage network in Tawari. In case of blocked pipes, dwellers individually or collectively pay to hire private sewage tankers.

Repairs

Dwellers collect money to carry out repair works to the sewage network. Dwellers may use their available technical skills or hire technicians for this end.

Problems

The main problem in Tawari is the flooding of sewage that sometimes reaches the inside of the houses. In winter and due to the absence of storm drains, sewage mixes with rain water and floods between houses. Flooding is caused by the following reasons:

- Inadequate networks comprised of old and damaged pipes.
- Wrong leveling of manifolds, which were placed at the same level of the houses.

Needs

The local PC and interviewed dwellers stressed the need for implementing a new and complete sewage network in Tawari that complies with environmental and engineering standards.

Sewage drainage and water connection methods in Tawari

Solid Waste Management

Applied Method

UNRWA provides partial solid waste collection service in Tawari. Dwellers collect their solid waste in plastic bags and carry them to the main street at the boundary of Tawari. UNRWA sends its truck to collect these bags and transports them to the UNRWA collection point in the camp. There are no containers for solid waste collection inside Tawari and no workers enter the AA due to security reasons. This method is applied every day except on Sundays.

According to representatives of the local community, UNRWA agreed to collect waste placed along the main street outside Tawari after repetitive requests and pressure by the local community. However, UNRWA did not agree to place containers for solid waste collection in the area.

Problems

Problems in solid waste management in Tawari are mainly related to:

- The lack of a comprehensive strategy of solid waste management in the area. The absence of the sustainability of service is a source of concern to most dwellers.
- The absence of solid waste collection or sweeping of roads in the AA.

Needs

Communicated needs are basically related to developing a sustainable and efficient strategy for solid waste management that covers all houses in Tawari. Under the current state of the service, representatives of the local community expressed the need for solid waste containers and a worker to sweep the roads.

Electricity

Source

Electricity is provided to households in Tawari through the urban network initially installed by EDL in 1990-1991. One transformer with a capacity of 500KVA was installed by EDL in Tawari, since it provides electricity to the Taamir and Villat areas. In addition, some dwellers are informally hooked to surrounding networks mainly in Taamir.

Electricity is provided every other six hours, as per the EDL system of regular cut-offs in the surrounding area.

Network Implementation

EDL has implemented the network and installed households' meters in Tawari in 1990-1991. According to representatives of the local community, EDL presence in Tawari (in terms of fee collection, maintenance and repairs) ceased in 1995 when the Army prohibited access of public employees to the AA. Dwellers replaced connections through EDL meters by direct connections to electricity poles. The main cable from the transformer to the electricity poles is a shielded aluminum cable. Cables connected by dwellers are however unshielded.

Operation and Cost Recovery

Since 1995, no stakeholder has been responsible for operating and maintaining the electricity network in Tawari. Dwellers do not pay consumption bills to EDL.

Repairs

For repair works, dwellers pay individually or collectively to hire technicians.

Ad-hoc connections to electric distribution boards, which replaced EDL meters, in Tawari

Problems

Electricity provision in Tawari is characterized by the absence of an organized institution to manage this sector. Problems are mostly related to:

- Unorganized network that suffers from many damages and cut-offs.
- Shortage in electricity provision due to insufficient transformers capacity.
- Old and unshielded secondary connections, which are inefficient and unsafe.

Needs

Representatives of the local community expressed the need for developing a comprehensive strategy for organizing electricity supply in Tawari. A new transformer and a new network are needed to upgrade and replace the old damaged network. According to EDL office in Saida, an additional transformer with a capacity of 250 to 400KVA will be installed in the AA to cover these needs.

Road Networks

Current State

Most roads in Tawari consist of narrow alleys between the houses. The main road that passes along the northern boundary of the AA (approximate width 7m) was asphalted by the Municipality of Saida in 2007. Most roads are paved with concrete layers that are in need of rehabilitation. Roads in Tawari lack storm drains, street lighting and sidewalks

Implementation

According to representatives of the local community, the main road passing along Tawari was asphalted through repetitive requests from dwellers to the main political leaders in Saida. The Municipality of Saida was the first to respond to their request. Dwellers collectively or individually pave alleys in front of their houses with concrete mixes.

Repairs

No stakeholders carry out repair works to the road network in Tawari. For repairs, dwellers prepare a concrete mix and cover the holes that are in front of their houses.

Problems and Needs

Roads in Tawari are damaged and in need of rehabilitation and asphalting. In addition, roads are in need of a storm drainage system to reduce flooding in winter.

Most roads in Tawari are in need of rehabilitation and asphalting

Priorities for Intervention

Intervention priorities as identified by representatives of the local community cover all sectors of basic urban service in Tawari. Priorities are in descending order:

1. Renewing and upgrading the water and sewage networks and identifying comprehensive and sustainable strategies for implementing and managing these services.
2. Implementing a new and sufficient electricity network that connects to all houses and developing a comprehensive strategy for organizing electricity supply.
3. Asphalting and paving roads and implementing a storm drainage system.
4. Developing a sustainable and efficient strategy for solid waste management.

Annexes

Annex 1
Glossary of BUS Terms

Water Provision

Water is driven from the well or the river through pumps. A high-lift pump pressurizes the water and sends it to a water tower. Through gravity, water is driven to a main network, then secondary network to reach collective manifolds. House connections are installed to collective manifold in order to fill the house tanks with water. In cases where a water tower is not used, water reaches the manifolds directly from the source if the pressure is enough; otherwise a pump is needed to add pressure to the network.

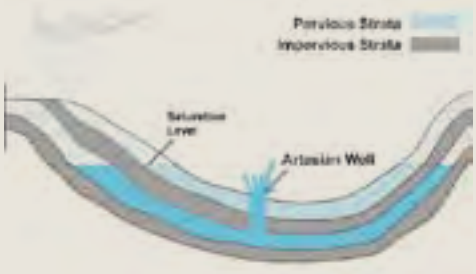
Manifold - A chamber or pipe with several openings for receiving or distributing water.

Pump - A device used to move water through displacing a volume by physical or mechanical action.

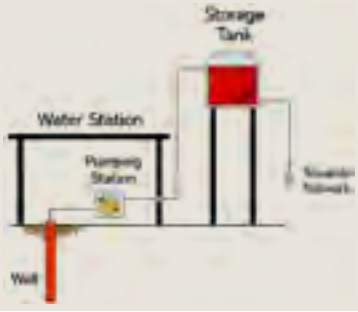
PVC or CPVC - Poly Vinyl Chlorid - A type of white or light gray plastic pipe used for water supply lines and waste pipes.

Water Tower (Alternatively **elevated water tank** or **collective water tank)** - A large elevated water storage container constructed to hold a water supply at a height sufficient to pressurize a water distribution system.

Borehole – A generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. Typically, a borehole used as a well is completed by installing a vertical pipe (casing) and well screen to keep the borehole from caving. When completed in this manner the borehole is then more commonly called a **well**.



Artesian Well – A confined well with hydraulic head higher than the level of the top of the aquifer. Groundwater flows upward without the need for pumping. If the hydraulic head in a confined well is higher than the land surface it is a "flowing" artesian well.



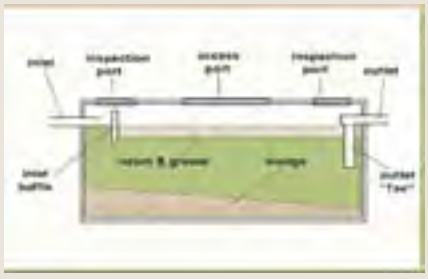
Water Station – A station that collects and supplies water through a combined mechanism of equipments and installations. The station uses a pump installed within a generator room to drive water from the well and towards a storage tank or a network.

Sewerage

Sewerage refers to the physical facilities through which sewage flows (e.g. pipes, lift stations and treatment and disposal facilities). **Sewage** is the waste matter carries off by sewer drains and pipes.

Houses discharge sewage through individual pipes connected directly to collective manholes. Secondary networks drive the sewage from collective manholes to the main sewage network. Sewage is finally discharged in a treatment plant or in some cases rivers or the sea. Other ways of discharging sewage are individual or collective septic tanks or cesspits.

Manhole (Alternatively **utility hole, maintenance hole, inspection chamber** or **access chamber)** – An underground utility vault used to house an access point for making connections or performing maintenance on underground and buried public utility and other services including sewers, telephone, electricity, storm drains and gas.



Septic Tank - An onsite waste water treatment system. It usually has a tank which promotes the biological digestion of the waste, and a drain field which is designed to let the left over liquid soak into the ground.

Solid Waste Collection

Dumper – A vehicle designed for carrying bulk material. A dumper is usually an open 4-wheeled vehicle with the load skip in front of the driver. The skip can tip to dump the load; this is where the name "dumper" comes from. They are normally diesel powered.

Container (Alternatively **dustbin**, **rubbish bin**, **litter bin**, **garbage can**, **trash can**, **trash bin**, **dumpster**, **waste basket**, **waste receptacle**, **container bin**, **bin trash barrel**, and **rubbish barrel**) – A container used for temporarily storing waste, which is usually made out of metal or plastic.

Garbage Truck (Alternatively **waste collection vehicle**) - A truck specially designed to pick up smaller quantities of waste and haul it to landfills and other recycling or treatment facilities.

Wheelbarrow - A small hand-propelled vehicle, usually with just one wheel, designed to be pushed and guided by a single person using two handles to the rear.

Electricity

Electricity is provided basically through high voltage cables. Series of transformers change the voltage of the alternating current to a medium voltage (High Voltage/Medium Voltage) and later on to a low voltage current (Medium Voltage/Low Voltage). Electricity is then distributed through poles and cables to distribution boards in the neighborhoods. From the distribution boards, electricity reaches the houses through individual electric meters.

Cable - Two or more wires running side by side and bonded, twisted or braided together to form a single assembly.

A **wire** is a single, usually cylindrical, string of metal used to carry electrical currents.

Transformer - An electrical device which changes the voltage of Alternating Current - such as reducing mains voltage.

Circuit Breaker - A device which looks like a switch and usually located inside the electrical distribution board. It is designed to shut of the power, limit the amount of power flowing through a circuit and protect the circuit from electrical overload

Distribution Board (Alternatively **breaker panels, panel board** or **circuit breaker box**) - A component of an electricity supply system which divides an electrical power feed into subsidiary circuits, while providing a protective fuse or circuit breaker for each circuit, in a common enclosure.

Electric Meter - A device that measures the amount of electrical energy supplied to or produced by a residence, business or machine. The most common type of meter measures kilowatt hours. When used in electricity retailing, the utilities record the values measured by these meters to generate an invoice for the electricity.

(Utility) Pole - A pole (usually wooden or metallic) used to support overhead wire, cable and associated equipment such as transformers and street lights. Wire and cable are routed overhead as a relatively inexpensive way to keep them insulated from the ground and each other, and out of contact with pedestrians or vehicles.

Voltage (V) - The numerical value of the electrical potential between two points in a circuit. Volts = Wattage/ Amperes. Most homes are wired with 110 and 220 volt lines.

Ampere (A or Amp) - Unit of electrical current. Either how much electricity an appliance will use, or a circuit (fuse, cable, connectors etc) can handle. Fuses are always rated by current as are cables. Each appliance will have an Amp rating or if only a wattage is quoted, Amps = Wattage/Voltage.

Road Networks

Road - An identifiable route, way or path between places. It is a line of communication for the use of road motor vehicles running on their own wheels. Included are highways, motorways, bridges, tunnels, supporting structures, junctions, crossings and interchanges.

Street - A paved public thoroughfare in a built environment. It is a public parcel of land adjoining buildings in an urban context, on which people may freely assemble, interact, and move about.

Alley - A narrow, pedestrian lane found in urban areas which usually runs between or behind building. Alleys may be paved, or simply dirt tracks.

Storm Drain (Alternatively **storm sewer, storm water drain**) - A drainage system designed to drain excess rain and ground water from paved streets and sidewalks. Storm drains vary in design from small residential dry wells to large municipal systems. They are fed by street gutters on most roads.

Street Gutter - A depression which runs alongside a city street, usually at the curb, and diverts rain and street, cleaning water away from the street and into a storm drain

Annex 2
Participants in Validation Meetings

Validation Meeting - AAs in Saida Area

Name	Institution
Abou Bassam Maqdah	PC (Tahaluf) - Ain el Helwe Camp
Abou Khodr	PC - Mieh Mieh Camp
Ahmad Fleifel	UNRWA CSO - Ain el Helwe Camp
Hassan Ayoub	UNRWA CSO - Mieh Mieh Camp
Maroun Jeha	Mayor of Municipality of Darb el Sim
Mohamed	PC (PLO) - Ain el Helwe Camp
Mohamed Hejazi	Water Authority - Saida
Rifaat Abou Saba	Mayor of Municipality of Mieh Mieh
Riyad Mrad	EDL - Saida
Teyssir Ammar	PC (PLO) - Ain el Helwe Camp
Wassim Shmayssani	PU - Saida

Validation Meeting - AAs in Beddawi

Name	Institution
Abo Ryad Chatleh	Popular Committee - Beddawi Camp
Fawzi Tweissi	UNRWA CSO - Beddawi Camp
Gabi Nasser	Water Authority - Tripoli
Khaled Moussa	Neighbourhood committees - Beddawi AAs
Majed Ghemrawi	Mayor of Municipality of Beddawi
Oussama Kenaan	Neighbourhood committees Beddawi AAs

Validation Meeting - NBC AA

Name	Institution
Abo Alaa	Popular Committee - NBC
Ahmad Hafza	Mayor of Municipality of Bhannine
Ghassan Khoury	EDL - Halba
Khaled el Haj	UNRWA CSO - NBC
Nadim Tellawi	Mayor of Municipality of Muhammara

Annex 3
Application Presented by Dwellers of NBC AA for Obtaining EDL Meters

بسم الله الرحمن الرحيم

اللجنة الشعبية الفلسطينية
مخيم نهر البارد

التاريخ / /

افادة

تفيد اللجنة الشعبية في مخيم نهر البارد أن السيد / .....

من سكان نهر البارد ، وقد أنشأ منزل في العقار رقم ..... منطقة ..... العقارية

حيث يملك جزء من هذا العقار ولا يمكنه الحصول على اثبات ملكية بسبب قانون عدم التملك .

وقد أعطيت هذه الافادة بناءً للطلب

تتغذى كهربائياً من محطة / .....

قطاع / .....

اللجنة الشعبيه الفلسطينية
أمين السر

This is an accommodation notification provided from the Popular Committee in NBC for dwellers in NBC AA to apply for electricity meters in EDL offices in Halba. It is signed by the General Secretary of the PC to verify that the applicant has built a house in NBC AA (referred by the PC as Nahr el Bared only) but cannot obtain an official document proving his ownership because of the Lebanese law that prevents Palestinians from owning properties in Lebanon. The notification mentions the date, the name of the applicant, the number of the plot and the area on which the house is built, the electricity station that feeds this area and the relevant sector of NBC AA.

Annex 4
BUS Study Prepared by the Local Committee of Hay el Sohoun

Water pipe line

شبكة المياه في حي الصحون

1-Long water pipe line is 300 m .L	يبلغ طول خط المياه 300 متر طولي
2- Size of pipes 2.5"	قطر المواسير 3 إنش
3-Kind of pipes plastic	نوعية المواسير المطلوبة بلاستيك مقوى
4-Excavation by Laborer	الحفر بواسطة العمال
5-Taking off old pipes	خلع خط المواسير القديم
6-Fitting of joints	تركيب المفاصل للوصل بين الأنابيب
7-Repairs of under ground services.	تصليح الاضرار والأعطال التي تحصل أثناء الحفر
8-Every building need T joint.	كل بناية تحتاج تي للتوصيل
9-House connections occurred and work.	توصيلات البيوت موجوده وهي صالحة للإستعمال
10-Replace pipes and Back fill accordingly .	عملية الدفن وتركيب الأنابيب حسب الأصول
11-Taking off surplus materials .	إزالة المواد الزائدة
12-Equipments need Excavation Tools.	المعدات المطلوبة يد عاملة و معدات الحفر

لجنة حي الصحون
تلفون: ٠٣/٨٠٦١٠٢

A list describing the main water line in Hay el Sohoun AA and the corresponding required works for rehabilitating this line

Source: The Neighbourhood Committee in Hay el Sohoun

A diagram showing the distribution of the main water line to the buildings in Hay el Sohoun
Source: The Neighbourhood Committee in Hay el Sohoun

Sea wage network

شبكة المجاري في حي الصحون

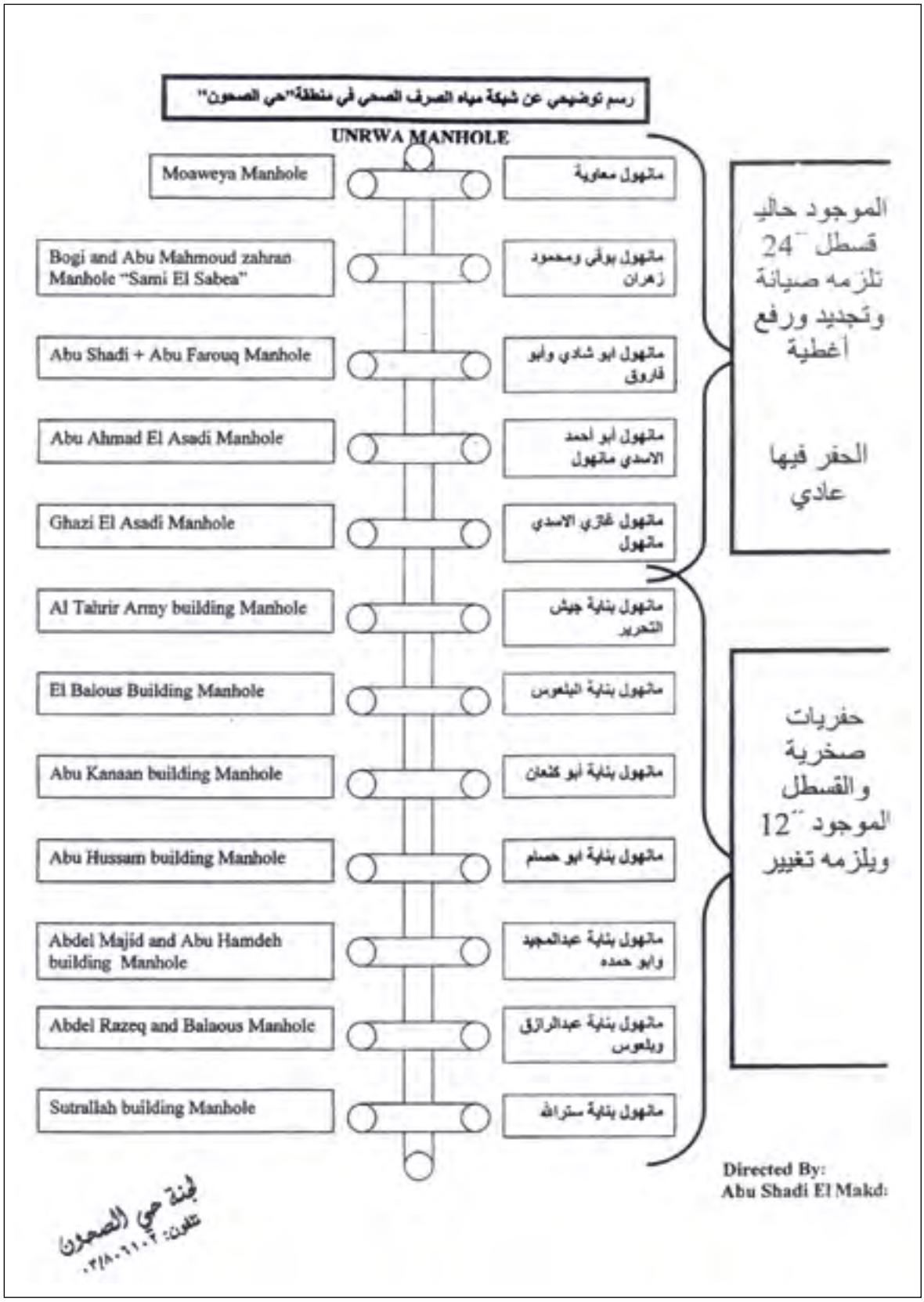
1- Length of sea wage line is 300 طول خط المجاري 300 متر طولي
2- Depth of excavation 1.5 mt or 1.20 mt عمق الحفريات 1.5 متر أو 1.20 متر
3- Kind of excavation normally and start rocky at 150 mt to up stream.
نوعية الحفر نصفها عادي ونصفها صخري
4- Size of pipes 24" قطر المواسير المطلوبة "24
5- Equipments regard المعدات اللازمة
a- Compressor كمبرسور
b- pocklin + Tippers to gift surplus materials بوكلين +قلاب لنقل المواد الزائدة +العمال
c- Laborers to comp – EX
6- Man holes at 30 mt with citron cover منهولات كل 30 متر كل منهول يحتاج غطاء حديد
7- Backfilling trenches Backfilling 30 cm of sand over pipes to protect pipes عملية الردم حسب المطلوب في البداية طبقة 30 سم من البودرة ثم يبدأ الردم بواسطة العمال
8- Manhole need concrete plus (sand grilled) iron bars of 14 m.m
كل منهول يحتاج إلى عملية الطوبار وصب الكونكريت وإستعمال حديد 14ملم

9- Houses connections if occurred repairing any damage et underground services water pipes توصيلات البيوت إن وجد + تصليح الأضرار التي قد تقع أثناء الحفر مثل أنابيب الماء أو خط الكهرباء وخلافه

لجنة حي الصحون
تلفون: ٠٣/٨٠٦١٠٢

A list showing a description of the main sewage line in Hay el Sohoun AA and the required works for rehabilitating this line

Source: The Neighbourhood Committee in Hay el Sohoun



A diagram showing the distribution of the main sewage line to the manholes in Hay el Sohoun
Source: The Neighbourhood Committee in Hay el Sohoun

Asphalting work

أعمال السفلته

1-Long of street 300 mt طول الشارع حي الصحون 300 متر طولي
2-Wide of street is 6 mt عرض الشارع 6 أمتار
3-Materials need : Asphalt layer of 7 cm or 5 cm as necessary
يحتاج الشارع إلى المواد التالية: طبقة اسفلت 7 سم أو 5 سم حسب الضروره
4-Bascourse as need بسكورس حسب الحاجه
5-Taking off extra edges and ston poles أو خلع الزوائد سواء براميل حديد أو كونكريت من على الشارع

لجنة حي الصحون
تلفون: ٠٣/٨٠٠٦١٠٢

A list showing a description of the main road in Hay el Sohoun AA and the required works for asphalting this road
Source: The Neighbourhood Committee in Hay el Sohoun

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Interviews

All interviews were carried by UN-HABITAT project team. Note that the list of interviews does not include the focus group meetings held for each AA or the validation meetings.

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Abdel Rahman Bezri, Mayor of the Municipality of Saida. Saida Municipality, 12 November 2009 and 2 December 2009.

Haitham Hakawati, Head of the Engineering Department in the Municipality of Saida. Saida Municipality, 17 November 2009.

Majed Ghemrawi, Mayor of the Municipality of Beddawi. Beddawi Municipality, 8 October 2009.

Maroun Jeha, Mayor of the Municipality of Darb el Sim. Darb el Sim Municipality, 12 November 2009.

Nadim Tellawi, Mayor of the Municipality of Muhammara. Muhammara Municipality, 2 August 2009.

Refaat Abou Saba, Mayor of the Municipality of Mieh Mieh. Mieh Mieh Municipality, 11 November 2009.

PLO

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This publication is a joint UN-HABITAT and UNDP effort to investigate access to basic urban services (BUS) in the Adjacent Areas (AAs) of Palestinian Refugee Camps in Lebanon. AAs are informal Palestinian gatherings that are located along the boundaries of official Palestinian refugee camps in Lebanon. In terms of access to basic urban services, AAs represent "Grey Areas" since they are denied both public and UNRWA basic urban services, given that the latter are provided within the boundaries of the official camps only.

This research investigates dwellers' access to BUS in the AAs from a governance perspective. It focuses on alternative mechanisms, relationships, roles as well as methods to access these services. Basic urban services covered are in the sectors of: Water Provision; Sewerage; Solid Waste Management; Electricity; and Road Networks. The research identifies a total of twelve AAs distributed as follows:

- 2 AAs around Beddawi Camp in North Lebanon
- 1 AA around Nahr el Bared Camp in North Lebanon
- 1 AA around Mieh Mieh Camp in South Lebanon
- 8 AAs around Ain el Helwe Camp in South Lebanon

The report is divided into two main parts:

Part One: presents the combined findings and analysis from the twelve AAs and describes common patterns and aspects that characterize access to BUS in the AAs. It starts by presenting the introduction **(section I)** and the context of the research **(section II)**. Following, it presents the main findings of the research along two main sections discussing the general profile of the AAs **(section III)** and the findings related to access to BUS **(section IV)**. Finally, it concludes with summarizing the main aspects that characterize access to BUS in the AAs and suggests a set of recommendations that aim at improving dwellers' access to these services **(section V).**

Part Two: presents the detailed findings per each of the twelve AAs identified. It is structured along four main sections that represent the AA(s) surrounding each of the four camps. In each section, findings are presented along three main segments: **1)** The first segment offers a general description of the physical relationship of the AA(s) with the adjacent camp and the surrounding villages/towns as well as the relationships that tie the local communities to other public and private stakeholders. **2)** The second segment presents a brief profiling of the adjacent camp and the surrounding village(s) or town(s), focusing on the state of BUS in these entities. **3)** The third segment outlines the detailed findings related to each AA surrounding a camp individually. It starts by a general profile of the AA, including its local organizational structure, and continues to present detailed information on dwellers' access to BUS (method, implementation process, problems, needs, etc.) and the priorities of interventions.