

Reinterpreting Hydro-social Cohesion in Conflict: The Case of Water User Associations in Northwestern Syria

MASTER'S DISSERTATION

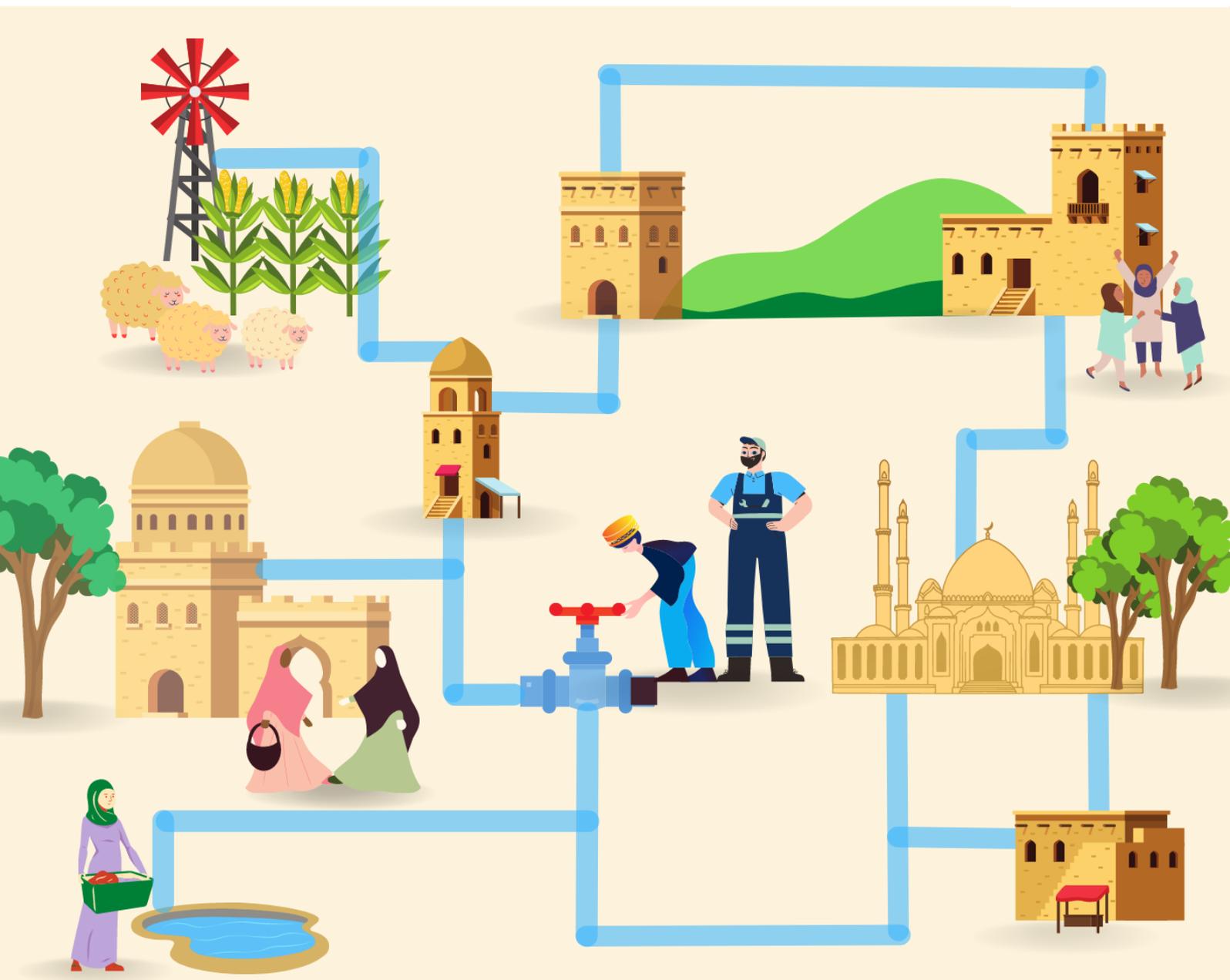
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Abstract

Water is an irreplaceable natural resource, the access to which is the most basic necessity, and the lack thereof can be a root to severe distress and suffering. Since a decade of an ongoing civil war, the water sector in Syria has been crippled, and its rehabilitation remains a complex issue, requiring sustained collective action and management mechanisms in the absence of formal government structures in the country. This thesis explores the viability of community-based water management structures in a vulnerable society and their ability to the enhance social relationships and foster feelings of empathy, trust, and symbiosis in marginalized, multi-ethnic, and displaced communities. Focusing on the case of water user associations in northwestern Syria, the study puts forth the notion of hydro-social cohesion, reinterpreting its existence and significance in a volatile and fragile society.

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Table of Contents

Abstract	2
Acknowledgements	3
List of Figures & Images	6
Abbreviations	7
Positionality Statement	8
Key Definitions	11
Introduction	12
Methodology	14
Research Question & Hypothesis	14
Data Collection & Sources	14
<i>Primary Data Sources</i>	14
<i>Secondary Data Sources</i>	15
Methods of Analysis:.....	15
Chapter 1: Literature Review	17
Section I: Revisiting Social Cohesion	17
1.1. Plurality of Social Cohesion	17
1.2. Shared Social Identities.....	20
1.3. Cultural Notions of Social Cohesion.....	21
Section II: Water, Conflict & Cohesion	22
1.4. Typologies of Water	23
1.5. Community Resource Governance.....	24
1.6. Hydro-social Cohesion	24
Chapter 2: The Case of Northwestern Syria	26
2.1. Understanding the Water Sector in Northern Syria	26
2.2. The Case Study.....	36
2.3. Impact.....	42
Chapter 3: Reinterpreting Hydro-social Cohesion	43
3.1. Redefining Social Cohesion.....	43
3.2. Results & Interpretations	45
3.3. Discussion	51
Conclusion	53
Annex	55

Annex 1: List of Interviewees 55

Annex 2: Interview Questionnaires 56

Annex 3: Survey Responses 64

Annex 4: Project Impact..... 66

Annex 5: Cost Recovery 68

Bibliography 69

List of Figures & Images

Figure 1: Incidents of water as a weapon in Syria and Iraq	23
Figure 2: Water supply reliability in Syria	27
Figure 3: Need analysis in the Aleppo Governorate and funding gap in the Syrian WASH sector	27
Figure 4: Population, displacement and return movements in northern Syria	29
Figure 5: Water supply affordability; % of income spent by Syrian households for water trucking	29
Figure 6: State of drinking water stations in Aleppo Governorate communities	30
Figure 7: Functionality status and cause of suspension of water stations in Afrin district	31
Figure 8: Map (1) Area of study	37
Figure 9: Map (2) Water resources in the region	37
Figure 10: Working mechanism of the WUAs	40
Figure 11: Sustainable finance model of the Geo Expertise project	41

Image 1: The state of spring in Jalamah, before the implementation of the project	38
Image 2: The state of spring and water infrastructure in Jalamah, after the implementation of the project	38
Image 3: Water supply network rehabilitation work in Mirkan	38
Image 4: Water user association’s monthly meeting, Jalamah.	40
Image 5: Women’s engagement in Geo Expertise water supply projects	50
Image 6: Women’s engagement in Geo Expertise water supply projects.	50

Abbreviations

ACU	Assistance Coordination Unit
AIDS	Acquired Immune Deficiency Syndrome
CHF	Common Humanitarian Fund
COVID-19	Coronavirus Disease
FSL	Food, Security, & Livelihood
IDP	Internally Displaced Person(s)
INGO/ NGO	International - Non-Governmental Organization(s)
IO	International Organization(s)
SCF	Savings Contingency Fund
SIG	Syrian Interim Government
SYP	Syrian Pound
UN OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UN FAO	Food & Agriculture Organization of the United Nations
WASH	Water, Sanitation & Hygiene
WD	Water Directorate
WS	Water Station(s)
WUA	Water User Association(s)
WU	Water Unit(s)

Positionality Statement



Sunset outside my residence in Reyhanli.

“Most evenings were utterly windy, yet it had become a ritual of sort: to come outside my residence and look over the orange sunset on the Syrian mountains. Those moments brought some momentary peace to me after a long day of interactions, but suddenly injected in me a feeling of an unknown discomfort. There was a loud silence floating over the brown fields which crawled until the foothills. The air there, was a paradox. I was aware of the chaos and uncertainty that existed behind those mountains, which sadly, did not disappear like the sun did in just a few moments. And here? From where I stand? I heard a feeling of raucous homesickness in every story I was told. These were not the stories of displacement, but of uprooting and ultimatums. Of guilt, helplessness, and despair. Of longing and sighs, nostalgia, and hope. Some of them saddened me deeply and some injected a sense of gratitude in me. All of them, however, made me realize that 'peace', is a luxury for so many.

I couldn't believe how people can be so kind despite all that they were going through. I was staying at a Shelter for women who fled their country and who needed refuge. They welcomed me with wide smiles and warm hospitality. I had 'qawaha' with them every morning and shared a hearty laughter. All of them had ongoing traumas and extremely hard pasts. Some of their husbands were held in custody for more than five years by the Government, some of them had lost them. They had kids and a future to worry about, with little money and a dearth of opportunities. Despite all this, they said that they had each other. We used online translators to communicate with one another, however, I realized one thing. The language of pain and joy is always universal.”

- An excerpt from my blog, *Home, hope, hustle: Lessons from the field*

The research premise chosen for this thesis in contrast to my personal profile may seem to surprise the reader. After all, I, a young, Indian, woman researcher am trying to reinterpret a complex concept in a country that I have never ever visited; trying to analyze the interviews conducted in a language that I do not speak. Seems like a bit of a paradox, doesn't it? In my attempt to justify my motivation, here is the story behind this story that you are about to read...

It was in October 2020, that I met with Late Professor Ronald Jaubert to request him to co-supervise my master's thesis. I went to him with a proposal which aimed to look at the interplays between water management and the local culture in Chennai, a traditional city in South India facing one of the gravest water crises in the country. I have visited Chennai a couple of times; however, I do not speak the language (Tamil) in the region. While Professor Jaubert encouraged this idea, I was not very sure about being able to do my fieldwork and interviews as I did not have any contact leads and the sanitary restrictions due to the COVID-19 crisis were getting stricter in India. Along with Dr. Ahmed Haj Asaad, Professor introduced me to their ongoing project with Geo Expertise and presented a field research opportunity to conduct interviews with the local population in southern Turkey. The project had already been implemented in northwestern Syria, and my job was to academically explore and test if the model could enhance social cohesion in the region and improve social relationships within the communities. It was something out of my comfort zone, and probably far from my expertise. I am neither a sociologist, nor a development practitioner, but through the course of this thesis, I have grown to keenly observe, unlearn, and relearn a lot of things.

The research hypothesis is highly interdisciplinary and multi-layered. Social cohesion is kept central to the scope of this thesis, which is a concept that took birth in the empirical, sociological debates. A case-study is developed based on an implemented project, that caters to a real world problem which makes it both personal, and political. The data that I gathered during my field research brings a lot of policy, development-assistance, and implementation-level insights to my arguments. I also talk about multi-ethnic, displaced, communities in a fragile context, and last but not the least, the main focus remains water, and its governance in these communities.

When I look back on this journey, I feel proud that I was able to look at the dynamics and vulnerabilities of a foreign society and was able to provide my own reinterpretation of social relationships. Moving on from the one-size-fits-all terminology, I have tried my best to keep my arguments and the analysis close to the local, cultural notions, and relatively free from my own presumptions. While doing the fieldwork, I was consciously and consistently making myself aware and trying to avoid comparisons and biases and was vary of my own prejudices. It was like walking out of the ideal bubble and travelling to the reality, which I had witnessed before, and already knew existed, but which made me uncomfortable in many ways.

I realized that I do not understand the language and some things might get lost in translation, however, the language of empathy proved to be universal. I come from the global South; I have also grown in a society stricken with a lot of core development and systemic issues. It did not

surprise me, that I did not feel out of place for even a single moment when I spent two weeks in Turkey. People were kind and I could easily contribute to the discussions. If there was one thing present in every conversation, it was hope. An eternal hope of being able to return to their country, proudly and safely; to learn in their language and live fearlessly; to reunite with their families and celebrate life; to access the most basic resources and to not be called refugees anymore. They had gratitude for the land they were living on, but also a recurring feeling that it is not where they belong. It stunned me how they never made me feel homesick, even though they all were away from their homes. We sat down and ate simple, yet delicious food with hands, just like I do, back home. The context was certainly different, but the routines felt similar.

With this thesis, I attempt to show the hydro-social relationships, and interconnectedness. What makes this research interesting and unique is the rare coupling of social cohesion as a terminology in relation with water governance. I hope that I can paint this tiny part of a huge reality somewhere in the world, and make sense of it, on the huge canvas of research.

Happy reading!

Key Definitions

Fragile context: “Contexts where there is an accumulation and combination of risks as a result of context-specific underlying causes combined with insufficient coping capacity of the state, system and/or communities to manage, absorb or mitigate those risks” (UNICEF 2018)

Local councils: “The Local Councils in Syria represent an alternative to the absent civilian government in areas under regime control or recently freed since the councils are run by the people living of the area”.¹

Social cohesion: “Social cohesion in a fragile society is an ongoing, continuous process of creating safe spaces of solidarity for diverse communities, based on the sense of trust, empathy, and belonging; with the aim of cultivating and developing shared social identities and values, stemming from shared challenges, and facilitating behavioral manifestations of collective participation and action for the common good of all”.²

Water stations: “Water station is a facility for supplying potable water to the water storage tanks, trucks, or other water containers”.

Water user associations: In the context of this thesis, the water user associations are formal, representative groups of water users established to manage the maintenance of water supply networks, distribution of water and collection of fees from the local communities. They work closely with the local councils and the NGOs working in the region.

¹ “Local Councils.” 2013. Syrian National Coalition Of Syrian Revolution and Opposition Forces.

<https://en.etilaf.org/soc-components/syrian-local-councils>

² This definition is self-operationalized for this thesis and elaborately discussed in Chapter 3.

Introduction

Water is an irreplaceable natural resource, the access to which is the most basic necessity, however, the lack thereof can be a root to severe distress and suffering. Since a decade of an ongoing civil war, the water sector in Syria has been characterized by widespread insecurity and looting, the weaponization of water, the mass migration of trained personnel, a lack of spares, and energy shortages, insufficient funding, leading to severe degradation of the country's water infrastructure. The rehabilitation of such crippled water supply networks remains a complex issue requiring collective action and management mechanisms in the absence of formal government structures in the country.

In liaison with Geo Expertise, this thesis explores if collective and community cooperation efforts to manage shared water resources for basic needs in a vulnerable society can directly contribute to the enhancement of social relationships and foster feelings of confidence, trust, and symbiosis in the communities. Focusing on the case of water user associations in northwestern Syria, the study considers the complex concept of social cohesion and attempts to reinterpret hydro-social relationships in a fragile society. The objective of this study is to contribute to the research gap which looks at the role of a neutral, natural resource like water in enhancing social cohesion. It aims to understand the impact of local and community-based water management systems such as the water user associations in enhancing social relationships and contributing towards building cohesive spaces even in a fragile society.

The study is guided by the following **research questions**:

How can participatory and community-based water management mechanisms (such as the water user associations) in a fragile context:

- *contribute to rebuilding social cohesion?*
- *act as enablers to revitalize social relationships amongst multi-ethnic communities?*
- *provide a common space of community building amongst the members of the society?*

To address these questions, a comprehensive understanding of the current state of the water sector in northwestern Syria was necessary, along with a thorough review of the empirical and cultural notions of social cohesion. This research gathers primary data from the field through 32 semi-structured interviews and provides a first-hand account of experiences and realities from the field. With a multilayered research premise, the study delves deeper by contextualizing and redefining the concept of social cohesion in a conflict society and providing diverse interpretations and narratives of hydro-social interactions.

This thesis is **structured** in three chapters:

- The **Methodology** section clearly states the key research questions and the hypothesis for the study, diving deeper into the data collection methods and sources, and the methods of analysis to provide an overview of the research process to the reader.

- **Chapter I** sets the stage by summarizing the empirical debates about social cohesion, and water governance, resuming the essential for this study. It also demonstrates an evident research gap in exploring the interlinkages of hydro-social cohesion in a vulnerable society. The literature cited here is from diverse disciplines ranging from sociology, medical anthropology, geography, history, hydro-geology, and development policy, making this review interdisciplinary and cross-cutting.
- **Chapter II** seeks to provide key findings on the water sector in northern Syria, outlining the challenges, gaps, and realities on the field through quotes, opinions and data obtained from the field. It then presents the case of water user associations in northwestern Syria, and discusses the model implemented by Geo Expertise.
- **Chapter III** puts forth and unpacks a new, contextualized definition of social cohesion and uses it to analyze different narratives and thoughts expressed during the survey interviews, providing different reinterpretations of hydro-social cohesion in crisis.
- The **Annex** provides elaborate information on the interviews conducted, questionnaires used, survey responses and statistics important for the study.

Methodology

Research Question & Hypothesis

Amongst other supplementary debates and interrogations, this study primarily aims to respond to the following research questions.

How can participatory and community-based water management mechanisms in a fragile context:

- contribute to rebuilding social cohesion?
- act as enablers to revitalize social relationships amongst multi-ethnic communities?
- provide a common space of community building amongst the members of the society?

My research hypothesis looks at whether such water management systems that involve the water users can enhance social cohesion; that is, reinforce the elements of trust, cooperation, belongingness, common identity, and empathy - even within a conflict-ridden society. Very few studies so far have explored the premise of hydro-social relations and cohesion, especially through the lens of community resource governance. This thesis aims to bridge this research gap by developing a context-specific case study, illustrating the case of WUAs in northwestern Syria.

Data Collection & Sources

This is a qualitative study that mainly seeks to highlight the primary findings collected during field research and uses secondary data to support and ground the arguments in the empirical literature. The following sources and methods were used for data collection:

Primary Data Sources

Field Research & Interviews:

The fieldwork was undertaken in collaboration with Geo Expertise³, who also helped me select the interviewees and get in touch with them from the field through their project correspondents. I spent 14 days in Reyhanli, a southern Turkish town, to undertake diverse interviews with two kinds of stakeholders with two different goals:

- (i) Field officers, practitioners, or project managers of (I)NGOs and humanitarian agencies, and Interim Government representatives operating in the northern Syria.
- (ii) The members of community (families, mayors of villages, local representatives, Water User Associations, women, and adolescents across seven different villages) under study.

³ [Geo Expertise](#) is the research partner with the Graduate Institute for this project, and an NGO based in Geneva, and operating primarily in Syria.

In total, I conducted 32 elaborate interviews. The sampling was done randomly, based on the availability and willingness of the members of the community and representatives of the organizations.

The interviews with the representatives of the organizations and the interim government were done in person, in Reyhanli and in Gaziantep, and were conversational in nature. The duration of these interactions was between 45-60 minutes each. The aim was to gain a holistic understanding of the opportunities and the challenges in the water sector in Syria, through their operations and projects.

Since it was not possible to enter Syria, the interviews with the members of the community were done via WhatsApp, with the help of an interpreter. They were semi-structured and followed the course of the pre-made and translated questionnaire and involved some spontaneous, qualitative interrogation. All the interviews with the community members took place in Arabic with a simultaneous interpretation in English. The duration of these interviews was between 30-45 minutes each. These interviews were crucial to obtain responses to make a qualitative assessment of social cohesion in the area. A comprehensive list of all the interviewees can be found in Annex 1, however they have been anonymized to protect the identity of the interviewees.

Secondary Data Sources

Desktop Scoping:

The literature reviewed included a vast repository of academic articles and papers, newspaper articles, policy documents, working reports, and white papers from various international organizations, as well as case studies and previous assessments on various topics. Along with this, various operational documents, and field plans (ex: water station infrastructure, project design plans, water supply arrangements) collected during fieldwork were also reviewed in detail.

Project Report:

A detailed project report containing the status of the project, activities conducted, maps, field assessments, information on the members of the community and the water user associations, etc., was made available by Geo Expertise. The facts about the project and the case study development are hence built based on the basis of this source.

Methods of Analysis:

Case Study Development:

Combining the primary data obtained through interviews with practitioners and the project report provided by Geo Expertise, an exploratory case study has been developed in this thesis. The purpose is to provide an interpretation of hydro-social cohesion and to demonstrate its

importance in the broader peacebuilding nexus in different contexts. Apart from serving its academic purpose, the case also provides a set of practical pre-requisites for using water, a natural resource, as a tool to enhance and catalyze the cohesiveness of a multi-ethnic and vulnerable community.

The context chosen for the analysis is northwestern Syria since the Geo Expertise project was implemented in the Afrin region of the Aleppo governorate. Southern Syria is currently under the dictatorial regime of the Syrian President Bashar al-Assad, and the water sector in northern Syria is mostly managed by people's interim government and humanitarian aid organizations. The political and social elements, as well as the challenges surrounding the water sector are discussed in detail throughout the course of the thesis.

Redefining Social Cohesion:

The definition of social cohesion used in the context of this study derived from a careful analysis of the existing definitions and a crucial, contextual insight, tailored to the area of study. Amidst the heavy jargon and convenient use of terminology, a practical and adaptable definition was developed during this research and is operationalized for the analysis of the findings.

The limitations and scope of the research is further elaborated in the discussion section in chapter three.

Chapter 1:

Literature Review

This chapter aims to summarize the empirical debates about social cohesion, and water governance, resuming the essential for this study. The authors cited below come from diverse disciplines ranging from sociology, medical anthropology, geography, history, hydro-geology, and development policy, making this review interdisciplinary and cross-cutting. The first part of the review makes commentary on the different definitions and cultural notions of social cohesion, while the latter half talks about water governance and hydro-social interconnectedness. Most literature compiled here touches upon the concepts individually, however, it also demonstrates an evident gap in the interlinkage of hydro-social cohesion in a vulnerable society.

Section I: Revisiting Social Cohesion

1.1. Plurality of Social Cohesion

The term “social cohesion” has been receiving a broader acknowledgment in the realm of development studies and operations as it carries a core, optimistic, multi-faceted, and a more humane approach and connotation for anticipating development. There have been many attempts to define, criticize, and interpret this term, which has also seen a growing popularity in contemporary academic and policy debates. Even a cursory assessment of social cohesion can expose the plurality and complexity of the concept, and even recall it as a “quasi-concept”, or a “concept of convenience” (Bernard 2000). Although the term was defined, operationalized, and mapped as a development tool quite recently, the local notions and ideas of social cohesion have always been around in cultures around the world.

In simple terms, social cohesion is the glue that binds a society together; it involves collective action for the “common good” for all, at a community level (Putnam 2000). Hence, social cohesion deals with societies and communities across the world, and the people living in them are heterogenous and diverse; therefore, so must be the interpretations of cohesion. With this review, I seek to highlight the key debates and argue the importance of contextualizing the interpretation of “social cohesion”, according to the structure, and culture of a particular society.

The origin story of social cohesion in the social and political theory has always been a story of the “decline of social ties” (Elkana et al. 2002). In the policy discourse, social cohesion has mainly been situated as an aspirational, positive state of society. Sometimes it has been used synonymously, or within the family of words like “social capital”, “social inclusion” or “social

integration” or is posed as an opposite to the broader evils such as social disintegration, instability, social exclusion, and or overall state of social dissolution. (Lockwood 1999) (Gough & Olofsson 1999). As globalization became more prominent, it considerably, suddenly, increased international mobility and gave rise to structural issues, demographic pressures, questions of identity, and new forms of “exclusion” (Lockwood 1999). The governors and policy makers across the world came to recognize that these new forms of social chasms needed new forms of governance. It was recognized that traditional indicators of growth and development can no longer govern these hybrid, diverse, and multi-ethnic communities, and new forms of analysis and assessment are needed. Amongst them, the assessment of trust, solidarity, participation, and identity was taken into consideration (Chan et al. 2006). Countries such as Canada; the European Union (EU), and the Council of Europe were some of the first ones in the policy community to come forward to put forth the idea of social cohesion, which encompassed all these new features. While we are discussing this, it is important to note that such case studies or policy experiences of the global North do not necessarily capture the realities of the developing countries. Hence, while analyzing the definitional scope of the term, it is crucial to anchor it in the cultural and social characteristics of the region in question.

Many features of social cohesion are recurring across literature; however, some authors associate more weight with some than others. Bollen & Hoyle put forth the theory of “perceived cohesion” which gauges “*an individual’s perception to their own cohesion in a group*” (1990). Their commentary on the definition of the term hence sheds light on the unattainability of a single perfect definition. They write, “*...recognizing that there exists no “true” definition of cohesion, we wish to propose a theoretical definition [...] that captures the extent to which individual group members feel “stuck to,” or a part of particular social groups*” (Ibid 1990). Lockwood, on the other hand, looks at social cohesion as one end of a scale and frames it in contrast to the other, which is social dissolution (1999). He also correlates the two, stating that a “decline” of social cohesion is a result of an increase in social dissolution, and is also associated with the weakening of social bonds and kinship (Ibid 1999). Lockwood provides some indicators such as the presence of “voluntary associations” which often seem to be reappearing in other social cohesion frameworks. However, the author’s binary and contrasting view on social cohesion remains insufficient to understand the full scope of the term, especially in the context of this thesis, where social cohesion is being situated in a rather disintegrated society.

It is interesting to note how some key authors (Berger-Schmitt 2002; Kearns & Forrest 2000) give a second interpretation of social cohesion where they refer to it as “*the absence of general conflict within society and of any serious challenge to the existing order and system*”. In my opinion, and with regard to this thesis, this correlation is rather dangerous and naïve, and this interpretation can highly limit the scope of social cohesion only to stable societies and peaceful contexts, by eliminating even the possibility and potential of achieving cohesion in disorderly and fragile contexts.

In 2006, Chan et al. attempted to provide a “rigorous” definition of social cohesion that is “operational, minimal in scope, and close to the ordinary usage” of the word. Following their

extensive review of literature, they wrote, “*Social cohesion is a state of affairs concerning both the vertical and the horizontal interactions among members of society as characterized by a set of attitudes and norms that includes trust, a sense of belonging and the willingness to participate and help, as well as their behavioral manifestations*” (Chan et al. 2006). Here, it is important to note that this study used their definition to operationalize the data collection process during the fieldwork, however, this definition faced limitations and was challenged during the course of the research. This research attempts to provide a new definition in chapter three, that aligns with the theme.

The authors argue that the above definition is minimalist and excludes culture-specific values which allow for a more holistic approach to cross-cultural comparison. The authors based their definition on three criteria: i) trust and cooperation; ii) common identity and sense of belonging; iii) “behavioral manifestations” of the aforementioned. Although their attempt to provide a singular definition of cohesion is commendable for the policy sphere, they often contradict their own reasons. For instance, their understanding of social cohesion is grounded in the belief that it is a “state of affairs” and not a “process” as the word “process”, may imply the existence of a “maximum level of cohesion”. However, they also argue that one must look at “repeated interactions” (of the society) to gauge the “state of cohesiveness” over some time (Ibid 2006). This indicates confusion and denial to understand social cohesion as a process, over a state of the society; an argument that this thesis establishes later.

Chan also argues that the policy discourse is “problem-driven” to a large extent, that is, it looks at social cohesion “as a reaction” to the existing social perils (Ibid 2006). This links to Jenson’s comment on how the discussions of social cohesion often concentrate on “deterioration”. She writes, “...*the concept of social cohesion assumes there are certain societal level conditions and processes that characterize a well-functioning society and that at this time these conditions may no longer be satisfied*” (1998).

The Government of Canada’s Policy Research Sub- Committee on Social Cohesion has defined social cohesion as “*the ongoing process of developing a community of shared values, shared challenges and equal opportunity within Canada, based on a sense of trust, hope and reciprocity among all Canadians*” (Jenson 1998). This definition is close to the definition used for this research, especially because it identifies the continuity of the term, and recognizes that is a ‘work in progress’. Jenson points out that the above definition establishes social cohesion as “a process” of developing “shared values” and clearly defines the scope of the community in consideration. She further goes on to comment that social cohesion is not just about “national identity” but also covers the local communities.

However, Jenson goes beyond merely commenting on this and other definitions, and instead of providing a single definition of the term, she “unpacks” the meaning by providing five dimensions of social cohesion: “*belonging, inclusion, participation, recognition, and legitimacy*” (Ibid 1998). She also suggests that there is no singular way to understand these dimensions, as they depend on the problem at hand and the way it is being framed. She argues that social cohesion may have different meanings for different focuses: for some, it can be “the

capacity to construct a collective identity” or “a sense of belonging”, for the others it may be an attempt to reduce the marginalization of its population and to provide equal opportunities to all its members (Ibid 1998).

1.2. Shared Social Identities

The Syrian revolution when it began, was not ethnoreligious, instead, the very fabric of the uprising was secular and anti-authoritarian. The early slogans from the demonstrations chanted messages like, “*No Sunnis, no Alawites, no Druze, no Isma’ili’s, we are all Syria*” (Firat 2012). Since the inception of the conflict in 2011, it has been framed as a “sectarian” conflict, which has caused division in the already “heterogenous” Syrian population and has led to a politicized composition of “ethno-sectarian” groups (Phillips 2015). Amongst the different religions and sects that co-existed in Syria before the war, there were Christians (9%), Alawi (12% - who supported the Bashar al-Asaad regime), Druze (3%), Shia (1%), Kurdish (10%), and Sunni (64%), the majority, which was then suppressed and marginalized by the President⁴ (Ibid 2015). Phillips argues that this “sectarian narrative” of the conflict is rooted in a false notion of political identity, and it is vital to have a multi-faceted understanding of the Syrian conflict, before drawing parallels from other instances of ethno-sectarian conflicts (Yugoslavia, Lebanon, Iraq), to avoid a “reductionist” interpretation of the Syrian revolution (2015). He further goes on to state, that the Syrian conflict was “semi-sectarian” in nature and evokes the modernist thought that the ‘political identities’ of the Syrians are constructed and “manipulated” by the ruling regime (Ibid 2015).

Identity is one of the major indicators of mapping social cohesion, so while focusing on a particular community in the Syrian society for this study, it is extremely important to take into consideration its composition, and its ethnoreligious-political standing, and the transforming shared social identities. Neville et al. in their research about shared social identities and social relations argue that in a particular community, there is a considerable difference between “physical copresence”, and “psychological” perception of being a part of a group (2020). The authors further state that “shared social identity” is a psychological construct that produces the elements of belonging, trust, cooperation, and respect amongst the members of a society (Ibid 2020). They further explain that any event, for instance, watching election results in a bar, automatically creates different shared social identities that link to the political ideologies, social standing, or information bias of the group, irrespective of what their personal identities are (i.e., religion, race, caste, sex, etc.). The authors argue that especially during the events of a crisis or disasters, this kind of shared social identity is constructed out of the sense of “common fate”, generating solidarity that provides a feeling of resilience to the “survivors” (Drury et al. 2009; Neville et al. 2020). Their research reveals two findings which are important for this thesis: first, that certain events can turn “physical crowds” into “psychological crowds” producing transformed social relations, and second, shared experiences by a group of people can form shared social identities within the group (Neville et al. 2020).

⁴ Bashar al-Assad, President of Syria (2000-2022)

This argument ties in well with the conflict-cohesion hypothesis. There have been many sociological debates about the relationship between conflict and cohesion, and how conflict plays a crucial systemic role in re-organizing social relations, and rather brings communities together (Benard & Doan 2011). Many have argued how conflict can “generate cohesion and solidarity” and based on a review of various theories, they hypothesize that “*intergroup conflict plays an important role in shaping intragroup relations*” (Benard & Doan 2011). However, the authors also question the viability of such a conflict-cohesion hypothesis and raise questions about the factors at play such as the nature of conflicts, cultural perspectives, or spatial analyses for such an argument to be established.

1.3. Cultural Notions of Social Cohesion

Social cohesion has never just been a by-product of “institution-building”, au contraire, it is deeply anchored in cultures. (Støvring 2011) In different cultures, social relationships and bonds are often produced and distorted in diverse, astonishing ways; these processes are often known differently and are untranslatable in other languages. For instance, in India, people can bond, crack business deals, or simply rant about their day, over a cup of tea or *chai*. *Chai* is considered to be the “essential lubricant of nearly all social occasions” and a “fuel of laborers in the casual economy” (Lutgendorf 2012). Similarly, Kaufmann writes about the German word *Bindung* which he explains denotes a bond or a sense of togetherness that has an emotional, obligatory, and essential connotation (2002). *Bindung* cannot be literally translated, but it does not possess a political shade. Rather, it encompasses six facets such as “attachment, cohesion, integration, morality, meaning, and shared histories”. (Ibid 2002)

Memories influence identities and relationships in a community. Social memories produce history. In her essay “Entangled Memories: *Bindung* & Identity”, Schmidt unfolds a case study of memories of violence in Eastern Zimbabwe (2004). The study shows that the narratives on violence are gendered and age-specific. The memory of *madzviti* (a locally used *Chishona* word in the Honde Valley while referring to the Gaza warriors) still occurs in the oral narratives and the day-to-day experiences and the formation of shared identities in the region. The past is used as an “explanatory archive” on which narratives are based. This example highlights the interlinkage between memory, identities, and social cohesion. Collective memory thus forms an important part of both, the “stabilization and undermining” of cohesion in a given social context.

In his essay⁵ on the exploration of social ties in response to the AIDS epidemic in West Africa, Dr. Vinh-Kim Nguyen argues the importance of understanding the local notions of solidarity, as he talks about the “African solidarity” (Nguyen 2002). While elaborating with the example of a voluntary association ‘*Jeunes sans frontieres*’, he calls it an “intermediary space” that acts as an intersection between the local community and the development agencies in the region. Nguyen sheds light on the concept of “kinship”, where he frames it as a functional conflict-

⁵ Nguyen, Vinh-Kim 2002. Ties that might heal: testimonials, solidarity and antiretrovirals in West Africa. In *Unraveling Ties. From Social Cohesion to New Practices of Connectedness*, edited by Elkana, Yehuda, et al. Frankfurt am Main: Campus, 117-146.

resolution tool for societies lacking formal political institutions, hence diluting the conventional notion of kinship. In his anecdotal commentary, he also gives a message that even an unfortunate “shared condition” such as AIDS, could restructure social perceptions, and the community affected by the disease could become the face of the fight towards curbing it (Ibid 2002).

The 14th-century scholar, Ibn Khaldun put forth the concept of *asabiyyah* which roughly translates to “social solidarity” or “tribe loyalty”, including the elements of unity, kinship, and collective action (Halim 2014). Such groups or tribes are glued together through a common thread of social perceptions (religion, language, shared beliefs, or lifestyles). It is often referred to as a “force” or power that “makes or breaks” the spirit of a group. Ibn Khaldun posits it as a “dynamic” used by groups or tribes to demonstrate power, supremacy, or legacy (Orhan 2018). Traditionally in the Arab world, a tribe (*ashira*) is said to be characterized by solidarity (*asabiyyah*) and a social bond based on imaginary or real blood relations (*ansab*) (Bocco 1995). It is especially crucial to notice that kinship is often a feature of *asabiyyah*, but it is certainly not its founding element. *Asabiyyah* has a resemblance with the Turkish terms of *aşiret* (kinship, tribalism) or *kabile* (social or legal contract, bond), however, it goes beyond just that and encompasses the feelings of mutual belongingness, affinity, and support for the members of the community (Ibid 2018). It is interesting to further note that the root of *asabiyyah* is the word “*asaba*” is used to express “psychological” group solidarity, even for groups of kids playing together daily on the same street (Ibid 2018).

Asabiyyah thus captures the essence of the emotion of unity, which cannot be reduced to being associated with a single group or tribe. However, the concept also carries power relations in the Arab culture (as in many others), where patriarchal dominance can exert pressure on group members to strictly adhere to a certain way of being; of which the most common example is prohibited marriage outside of a given community (Ibid 2018). Social cohesion, when translated to the local notions of solidarity and bonding takes forms in line with the culture of the region, and therefore, the concept of *asabiyyah* remains instrumental for this study.

Section II: Water, Conflict & Cohesion

“Water, like religion and ideology, has the power to move millions of people. Since the very birth of human civilization, people have moved to settle close to water. People move when there is too little of it. People move when there is too much of it. People journey down it. People write and sing and dance and dream about it. People fight over it. And all people, everywhere and every day, need it”.⁶ - Mikhail Gorbachev

Water is an irreplaceable natural resource. In the past decades, water has been studied not only geographically as a natural resource, but also politically and culturally. Hydro-social

⁶ Introductory article written for *Civilization*, the Magazine of the US Library of Congress, October-November 2000, by Guest Editor Mikhail Gorbachev. Lamolinara, GuY, and John H Sayers. “The Library of Congress Information Bulletin, 2000.”: 474.

relationships have always existed around us, and the interconnectedness between the hydrological, the social, and the cultural has been profound. (Krause and Strang 2016) An essential motive of this thesis is also to attempt to understand these relationships and their mutual impact. Such hydro-social interconnections can tell stories of resources and civilizations, of access and tradition, of justice and scarcity, of power and prejudices. This section introduces some key literature on water, conflicts, and cohesion, which will be essential to anchor my arguments.

1.4. Typologies of Water

Before attempting to paint the role of water as a tool of peace and cohesion, it is important to understand the context of conflict that surrounds it. Conflicts over access to water resources are nothing new and have been present across civilizations since the inception of the agrarian culture. On one hand the scarcity, and on the other, the politicization of water has led to a lack of access to these resources to millions of people. Daoudy discusses the different “typologies” of water and how “access to water” can be used as an indication of power, politics, weapon, or violence, depending on the motive (2020). The author further classifies the typologies of conflict to be different from the typologies of weaponization, while the former focus on the actors, the latter elaborate on the costs and outcomes (Ibid 2020). Focusing on the Syrian context, in her arguments, firstly, she states that even beyond war, the state manipulates water as a weapon with the construction of and obstruction as larger infrastructures and systems. In north-eastern Syria, the construction of large dams by the government marginalized and forcefully displaced the local populations, disrupting the agrarian systems in the area. Secondly, access to water is made scarce by using it as a “military tool”, and thus limiting or depriving its access to the populations. And lastly, she hypothesizes and argues that a typology of water can also be based on a pact of cooperation between the different kinds of actors, to fulfill their own vested interests (Ibid 2020).

	Totals	Syria	Iraq
Strategic Weaponization	23	9	14
Tactical Weaponization	11	6	5
Psychological Terrorism	4	4	0
Incentivization	2	0	2
Unintentional Weaponization	7	6	1
N/A	2	0	2

Fig. 1: Incidents of water as a weapon in Syria and Iraq (Daoudy 2020)

King discusses the water weaponization in Syria and Iraq historically in his analyses (2015). While providing incidents of each different type of weaponization, he classifies it into five types: strategic (destruction of facilities and infrastructure), tactical (as a military ploy), psychological terror (creation of fear of “denial” of access), a form of incentivization (establishing “credibility” by offering access to water as a bribe), and unintentional (the ecological and social destruction caused by resource scarcity due to mass migrations) (Ibid 2015). Such a context calls for counter-strategies of “hydro-cooperation” involving a diverse range of actors and grassroots-driven interventions (Brachet & Wolpe 2005).

1.5. Community Resource Governance

Water resource governance holds a crucial role in conflict recovery, and peace mediation processes (Weinthal et al. 2011). Rehabilitation of a “crippled water sector” and provision of its safe and timely access become crucial in the post-conflict recovery phases, as water is a basic need across sectors such as agriculture, infrastructure development, health, sanitation, and hygiene. This complex challenge of rebuilding systems and infrastructure and setting up governance structures without the presence of a strong and stable government requires collaborations with non-state actors across a “diversified institutional landscape” (Ibid 2011).

In order to launch the development trajectory in a post-conflict setting, establishing strong governance mechanisms, and encouraging community cooperation or activism can help foster feelings of confidence, trust, collective action, and conflict resolution, acting as a foundation of building peace (Wolf et al. 2005). Case studies from Liberia, the Democratic Republic of Congo, and Afghanistan show how just and sustainable management of water can help in building peace, by effectively providing for the basic needs and improving livelihoods of the communities (Burt and Keiru 2011). The post-conflict systemic issues are similar across all geographies, characterized by damaged infrastructure, an influx of refugees and demographic changes, violence, and fragile institutions, making it inevitable for communities to organize themselves for managing their own resources. The lessons learned from these three countries demonstrate three prime observations; first, evidence from the field shows that building capacities for communities, results in sustainable water governance structures and enhances “community cohesion, social inclusion for marginalized groups” (Fearon 2009). Second, community-driven efforts and initiatives overcome the sluggish systems and contribute to the development of local livelihoods. And lastly, all the three instances highlight the role of women in the water management processes, as their role extends beyond their gender identities as “peacemakers, educators, and communicators” for households and communities at a large (Burt and Keiru 2011).

1.6. Hydro-social Cohesion

Very few studies have actively commented on the phenomenon of “hydro-social cohesion” and discussed the correlation between water management and societal bonds. I am going to expand on one of the most recent and pivotal research from Labbaf Khaneiki, a human geographer. He discusses in his book the relationships between the local communities and their water resources in the Iranian plateau, from a geographical-historical point of view (2020). He quotes Wilson

and Mansour in setting the ground for his argument, stating that “*a common goal like water management serves as a collective directional movement*” which is one of the prominent features of social cohesion. (Ibid 2020; Wilson and Mansour 2020) His research focuses on the traditional Iranian water infrastructure or *qanats*⁷ and he argues that these *qanats* produce a certain “water culture” that speaks to the local communities and protects them from environmental, social, and political shocks. From a historical context, the author points out that there have been many instances where water governance mechanisms and systems have contributed to social cohesion, citing the example of how the “shared irrigation cycles” provided a commonality to the local communities and created a space to share other social affairs such as religious functions, finances, and conflict resolution (Ibid 2020).

A crucial point raised in his research is the critique of the common argument of scarce resources, lack of access, and the conflict therewithin. With evidence from his case study in the Yazd province of Iran, Labbaf Khaneiki writes “*in many parts of Iran water scarcity serves as the first domino of social cohesion*” and being a part of a shared irrigation cycle reigns above the racial and cultural differences. With the case of Iran, he illustrates how the irrigation system has acted as a space of “adaptation” and has been able to dim the religious differences in a village where most members were Zoroastrians with a minority of Muslims, having considerable linguistic differences. Moreover, when resources are jointly managed in an integrated manner, it eliminates the power relations and social inequity to a great extent (Ibid 2020).

While the author has extensively talked about social cohesion, they have not provided a clean definition of the term and refers to it mostly as an ensemble of related social phenomena. Although his research has been instrumental, it majorly talks about water in the agrarian landscape, and little about water for basic needs. With this thesis, I aim to bridge this gap, and expand the hydro-social cohesion spectrum through the case of water user associations in north-western Syria in the next chapters.

⁷ (In the Middle East) - a gently sloping underground channel or tunnel constructed to lead water from the interior of a hill to a village below.

Chapter 2:

The Case of Northwestern Syria

This chapter seeks to firstly, provide a broader perspective of the water sector in northern Syria, outlining the challenges and realities on the field, which will help build a stronger foundation for the study. Most of these findings are from the 15 interviews that I conducted with the practitioners and representatives of the humanitarian response organizations working in northern Syria (Annex 1, Part A), and based on the resources provided by them. The first part provides a detailed account of experiences, bringing in relevant data and strengthening the understanding of the context. The second half zooms in with the case study of the project conducted by Geo Expertise in the Afrin region, in northwestern Syria, outlining the context, their model and objectively stating the impact of the project.

2.1. Understanding the Water Sector in Northern Syria

Introduction & Need Analysis

The Syrian water sector, since the outbreak of civil war in 2011, has been characterized by widespread insecurity and looting, the weaponization of water, the flight of trained personnel, a lack of spares, and energy shortages, leading to severe degradation of the country's water infrastructure (Geo Expertise 2020). The rehabilitation of water supply networks remains a complex issue requiring collective action and governance mechanisms in the absence of formal government structures in the country. Before the conflict, water supply systems for domestic usage and irrigation were managed by the state services.

Hence today, the Water, Sanitation & Hygiene (WASH) sector is of critical importance and scale in the humanitarian response landscape in Syria. That is because of three key reasons. First, it corresponds to the absolute basic needs of the population and is currently heavily aid-dependent; second, it is extremely volatile with the constantly emerging demographic situation and the availability of resources; and third, it faces a lot of systemic obstacles such as severely damaged and non-functioning infrastructure, dearth of financial and human resources and absence of management structures in place.

Water scarcity remains a prevailing issue, as the water levels of the river Euphrates stay low due to scanty rainfall, causing the groundwater levels to deplete even further this year, however, scarcity is not at the heart of the problems that the water sector is plagued with (UN OCHA 2021). Water has been politicized in Syria, and the country is very prone to chronic water

scarcity. According to the 2020 assessment by the WASH Cluster⁸ in the Syrian Arab Republic 94% of households on the national level, go two or more consecutive days without access to water for basic needs. (Figure 2)

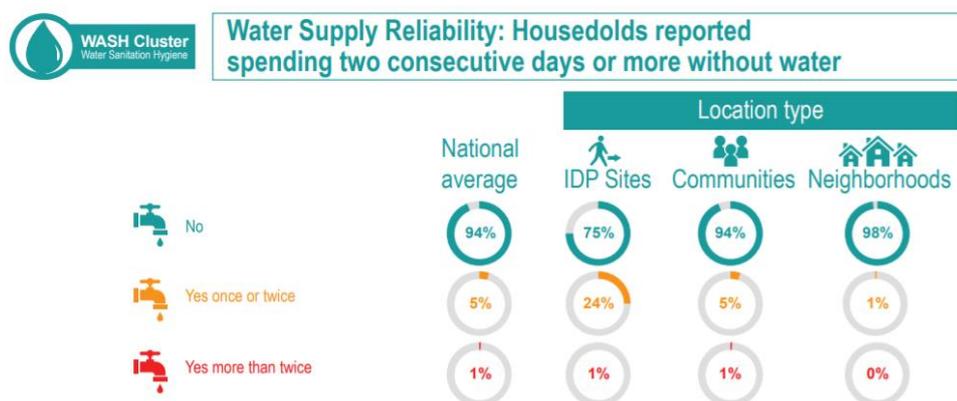


Fig. 2: Water supply reliability in Syria (Wash Cluster, 2020)

However, this is not just an availability problem, but a finance, management, and governance problem. Earlier this year, approximately 2.9 million people needed WASH facilities, alone in the Aleppo governorate in northwestern Syria with a prevailing funding gap of more than \$1.8 million to rehabilitate the country’s WASH sector (UN OCHA 2021). (Figure 3)⁹



Fig. 3: Need analysis in the Aleppo Governorate and funding gap in the Syrian WASH Sector, 2021. (UN OCHA 2021)

In the current landscape, the main actors in the Syrian water sector include the International Organizations (IOs), and International and Non-governmental Organizations (INGOs &

⁸ The assessment is statistically significant with a 95% confidence level and with a 10% margin of error at the sub-district level (a dedicated tool was used to determine the sample size for two-stage stratified sampling calculations) and the results are comparable with the previous years. Total interviews: 31,269 interviews.

⁹ Affairs, UN Office for the Coordination of Humanitarian. 2021. “Water Crisis in Northern and Northeast Syria - Immediate Response and Funding Requirements.”

https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/water_crisis_respo_nse_plan-september_2021.pdf. <https://www.ecoi.net/de/dokument/2060265.html> (December 9, 2021).

NGOs), the Syrian Interim Government (National Coalition of Syrian Revolution and Opposition Forces)¹⁰, and the Assistance Coordination Unit (ACU)¹¹, the Local Councils and Local Committees, the Water User Associations, and the civil society. It is important to understand the roles they have to play and their limitations, vis a vis in the current scenario. While discussing the realities of the water sector in northern Syria, one of the officials of the Syrian Interim Government (SIG) said, “...water is the key to development in Syria. This development will result in the rebuilding of a better society, facilitating livelihoods, and creating income generation mechanisms. The [political] regime has not only cut the drinking water supply but also politicized the irrigation water and supply for electricity generation, forcing the overall economy to come to a standstill” (Interviewee 5).

Demography, Infrastructure & Rehabilitation

- ***Migration***

The demographic graph of the country has been changing constantly since the beginning of the war, spawning a huge influx of crowds from the south to the north of the country. There is almost an absence of stability, as people have to move homes constantly, resulting in a feeling of disintegration and lack of unity. The Afrin district under the Aleppo governorate, currently hosts more than 300,000 internally displaced persons (IDPs), in 173 communities, and 13 camps (UN OCHA, 2021). The IDPs are usually heavily dependent on water trucking¹², an expensive alternative¹³ (Figure 4) for their daily water needs, as they are not well-connected to the village water supply networks.

¹⁰ The Syrian Interim Government is an alternative government in Syria, formed by the umbrella opposition group, the National Coalition for Syrian Revolutionary and Opposition Forces.

¹¹ The Assistance Coordination Unit (ACU) is a national Syrian non-government, non-political, non-profit institution focused on maximizing the impact of assistance delivered to the Syrian people by coordinating the efforts of donors, implementing agencies, and community representatives.

¹² Water trucking is a rapid means of transporting water to areas in need during the initial phase of an emergency through water tanks.

¹³ Water trucking costs in the Afrin region range between SYP 8600 to SYP 15000 per month. (“ACAPS | Syria: Humanitarian needs in Afrin, Briefing Note, March 2021” ACAPS. <https://www.acaps.org/>)

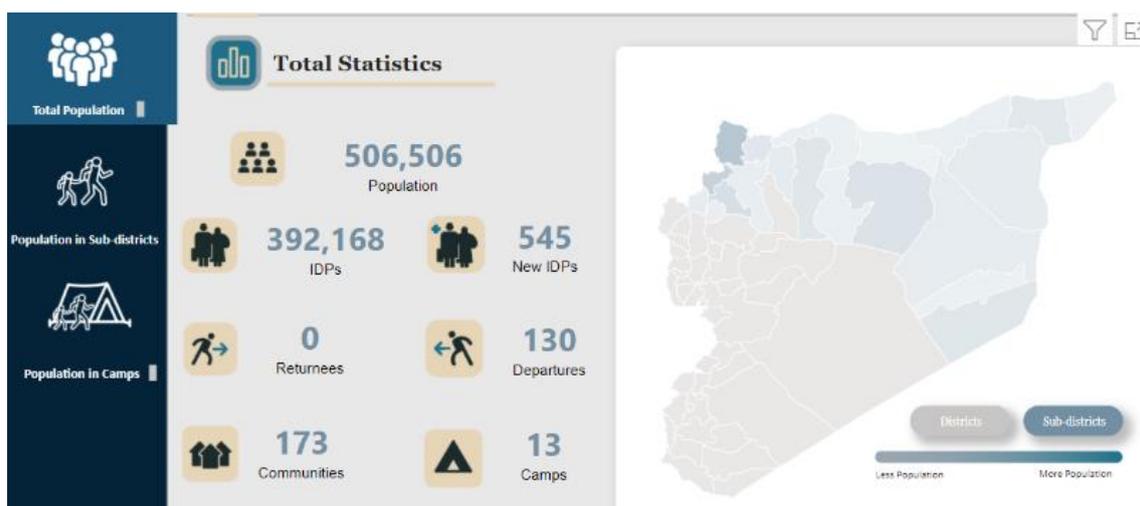


Fig. 4: Population, displacement and return movements in northern Syria, The Humanitarian Data Exchange (UN OCHA) ¹⁴

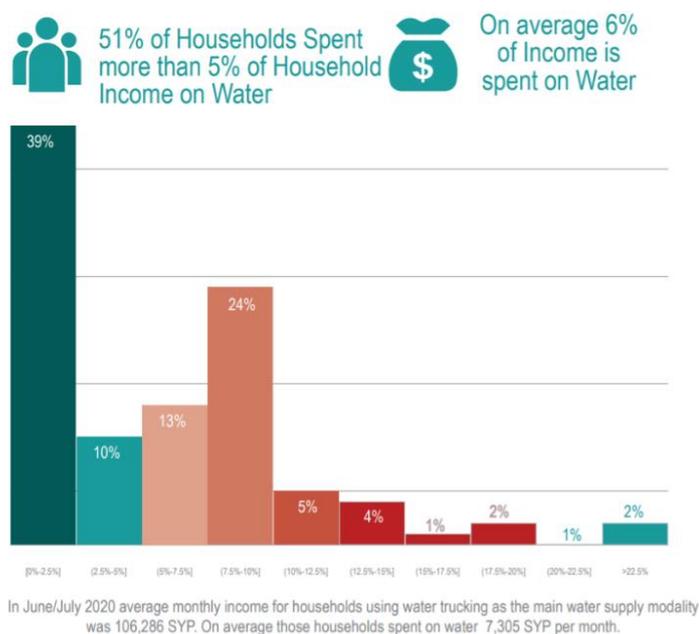


Fig. 5: Water supply affordability; % of income spent by Syrian households for water trucking, (Wash Cluster, 2020)

This rousing instability caused due to frequent, forced migration has been producing exceptionally heterogenous communities, with diverse ways of life. Even the displaced population comes from different economic and social backgrounds and are the most vulnerable people on the move. This is also a reason why most of the advocacy efforts and donations for drinking water projects are diverted towards them. “The INGOs are focusing on the displaced

¹⁴ “Population, Displacement and Return Movements in Northern Syria - Humanitarian Data Exchange.” <https://data.humdata.org/dataset/population-displacement-and-return-movements-in-northern-syria> *Dataset updated every month.

people, which is affecting the relations in the communities. Water trucking focuses on the IDPs and that excludes the locals, creating tensions between them” (Interviewee 11). During the COVID-19 crisis, the need for water hugely increased from approximately 20 liters per day to 30 liters per day, for hygiene purposes in camps as well as the communities. “We also needed to provide, soap, detergent, and sanitizers, which increased the cost of the projects, but we had to take care of the population” (Interviewee 4).

- **Infrastructure**

Even a quick overview of the infrastructure status reveals that only 15% of water stations in the Afrin district are fully functional, while 85% of them are suspended or non-functional (Figure 7) (Syria Water Resources Platform 2021). The reasons for suspension are diverse, the most common being a high need for maintenance and repairs, followed by high operational costs and security issues. A common pattern in the response of all the interviewees was the dearth of funds and legal powers with the local councils, making it impossible for them to maintain the stations, and therefore, the humanitarian interventions in the area are primarily focusing on the rehabilitation of these water infrastructures.

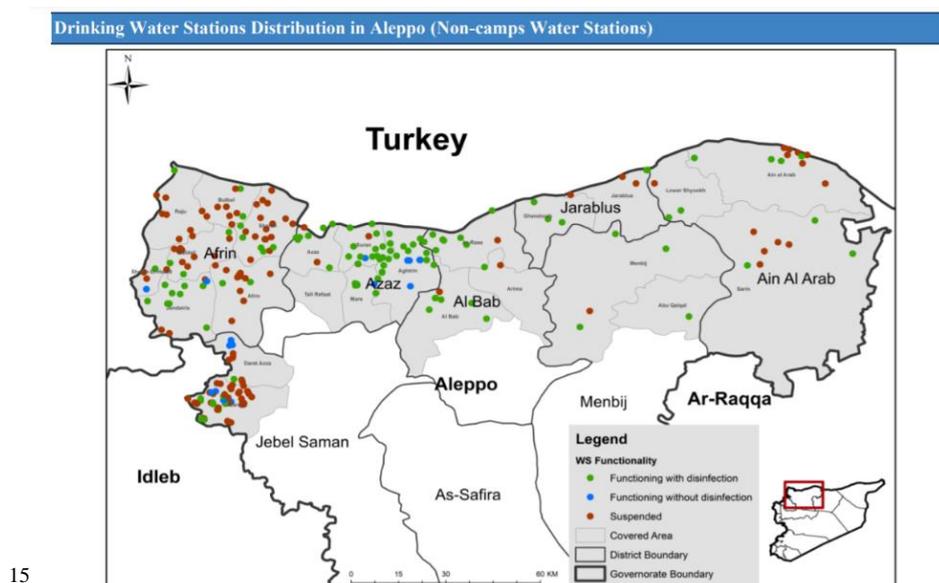


Fig. 6: State of drinking water stations in Aleppo Governorate communities (Assistance Coordination Unit (ACU) 2021)

¹⁵ “WASH Reports | Assistance Coordination Unit - ACU.” WASH Biweekly Bulletin - Syria, 14 November to 27 November 2021. <https://www.acu-sy.org/en/wash-reports/>

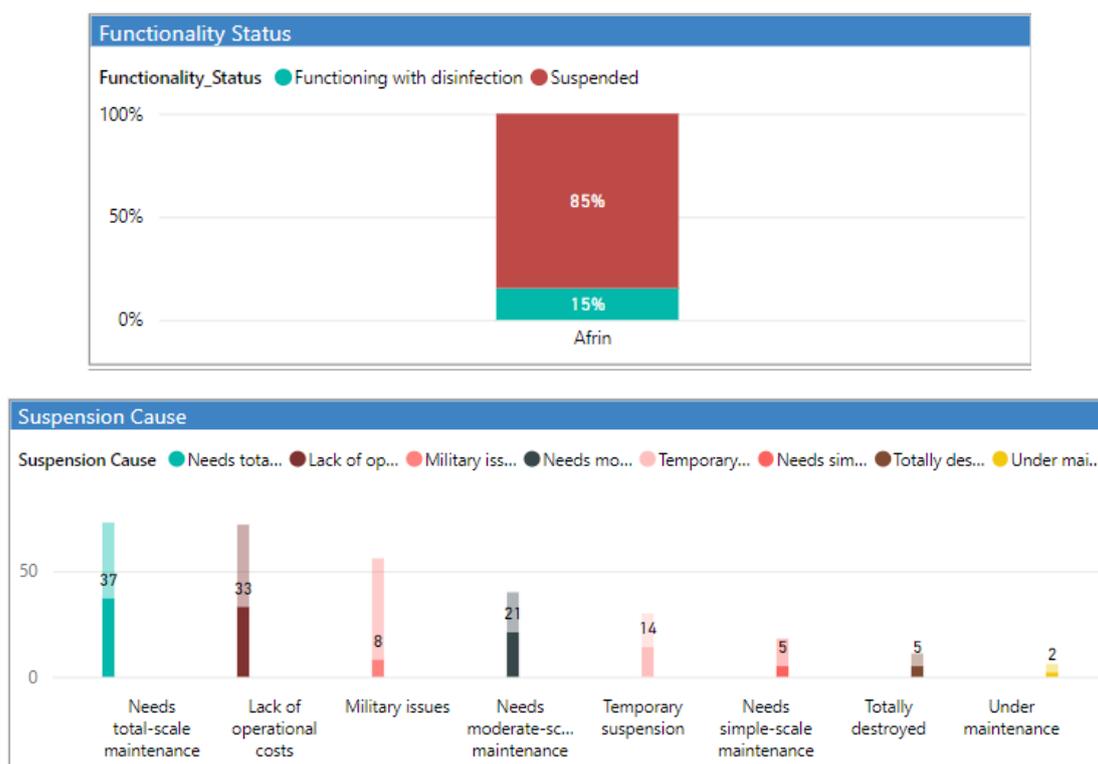


Fig. 7: Functionality status and cause of suspension of Water Stations in Afrin District (Syria Water Resources Platform 2021)

Humanitarian Response Landscape

There is a huge need on the ground, especially in the camps area, and the presence of humanitarian response organizations is indispensable as a result of disrupted systems and dismantled infrastructure. Northwestern Syria has a concentration of camps with marginalized communities whose economic situation is so poor that they can barely pay money to get access to water, resulting in certain conflicts within the local communities. This has been the main and recurring challenge and humanitarian response organizations have been working along with the local leaders to build coordination between the locals and the displaced.

The role of IOs and INGOs has been critical in the field. For instance, UN OCHA gives (CHF-Common Humanitarian Fund)¹⁶ for the Syrian crisis especially in cases of emergencies. “CHF is ideal for emergencies. More than 80% of IDP sites are supported by water trucking that is, drawing water from a common source (ex: a private well) and providing it to the camps through trucks and tankers, all while ensuring the water quality of the same. The crisis has lasted for more than 10 years, and now the donors have started looking at providing more sustainable solutions. However, in the Syrian context, as the war is still ongoing, provisions like CHF are

¹⁶ Common Humanitarian Funds (CHFs) are country-based pooled funds that provide early and predictable funding to NGOs and UN agencies for their response to critical humanitarian needs. CHFs enable Humanitarian Country Teams—who are best informed of the situation on the ground—to swiftly allocate resources where they are most needed, and to fund priority projects as identified in a Consolidated Appeal Process (CAP), or a similar humanitarian action plan.

crucial, as they support emergency solutions like water trucking and desludging septic tanks” (Interviewee 1).

The dynamics of international aid also depend on who is granting the aid, and sometimes the aid comes with conditions and limitations. Many interviewees also expressed a concern that despite a huge amount of international aid flowing in the country, the situation in Syria has remained an emergency response operation and has not transitioned to a development-oriented trajectory. Interviewee 3 says while expressing his concern: *“...the ongoing efforts are just not enough. Take the example of the food-basket projects; per year, you will cover 2 million people, but what about the next year? The impact will always be limited, and you will still not cover even 1% of the needs of the people. The situation in Syria 10 years ago and today is quite the same. It is very difficult to secure all the needs. It is high time that the organizations must focus on income generation activities and think of sustainable solutions for communities. We also need to give incentives for the people who work on the ground to implement these projects”* (Interviewee 3).

A United Nations officer based in Turkey, narrated how *“the issues and challenges in general for the international humanitarian actors are remote management and distant management as they cannot really go on the field”* (Interviewee 6). It was also remarked by some that the INGOs and IOs hesitate to implement projects in “high-risk” areas and only prefer the chosen secure areas. They also have certain limitations in terms of rules, bureaucracy, and policies. Amongst these internal shortcomings, there are a lot of external challenges as well. *“Security is the primary issue, there are airstrikes, and bombings happening all the time. This affects the implementation of our projects in terms of equipment and infrastructure. Thefts are also common. There is the problem of occupation and seizure by the government and other armies, and the main one is the lack of funding...”* (Interviewee 4).

- **Capacity building**

In the international-aid landscape, many donors give funds that are result-based, and project-based. While doing so, they often involve the communities in providing short-term technical training to help with the projects. While this step is important, it is not enough as these communities are not always skilled at managing projects or handling operations in situations of crisis. *“Capacity building and capacity bridging are highly crucial components of project management; however, these training should be suitable to the context, and the capacity trainings need to be wide and diverse”* (Interviewee 4). According to some, there is a need to build the capacities of the local councils and WUAs rather than the end beneficiaries. Interviewee 1, while reflecting upon this said: *“...the context matters, if we are considering a local station covering around five thousand beneficiaries, then one can manage training and capacity building programs to ensure their functioning. However, for huge stations covering five to six different communities, it is impossible to manage such stations only with the help of WUAs”*.

Some interviewees carefully deconstructed this terminology, presenting the reality on the field, and the need to reassess the applicability of such training. *“It is also important to understand*

the context, before using report-based terminologies. If I go to the camps and say that I will provide capacity training to you, they won't be willing to participate in it. People have huge needs, they will say- "feed us, and then talk to us". If you visit Syria, you will understand how different it is from site to site..." (Interviewee 3).

Water User Associations

Before the crisis, the government had a Water Directorate (WD) which governed the Water Units (WUs) per region, who were responsible to collect fees from the beneficiaries. These WUs were mostly composed of technicians, water engineers, and practitioners, who are skilled at maintenance and repair work, and not the end beneficiaries of the supply networks. WUAs are now common and popular collective, voluntary movements that are used to manage the water systems in northwest Syria. They have been operational mostly for the management irrigation networks earlier, however, some small-scale community water projects have also worked with the WUAs, building on their capacities, and continuing their projects through these associations. Although the primary water infrastructure is built by the Local Councils themselves, along with the help of the INGOs in the region, these WUAs are in charge of the maintenance and distribution of water to the households.

It was discussed during many interviews that in recent times, there is a huge number of WUAs established in the region to manage the water supply networks, however, these associations, unfortunately, do not have the power and have to depend on the local councils or humanitarian organizations for resources as they face a severe lack of funds. *"We need to understand that the WUAs cannot be created from the scratch, you need an existing water infrastructure, you need donors, you need organizations on the field [...] The availability of funds remains an integral part of the smooth functioning of a given system, and in the absence of money, it becomes difficult to coordinate. For instance, the area close to the Turkish-Syrian border is governed by the Turkish directorate, and the coordination almost goes smoothly, since they have enough funds and power"* (Interviewee 3).

Due to the overall water scarcity, there is often a conflict between irrigation water and drinking water. Northwest Syria is suffering from a lack of production as most of its land is not irrigated and a lot of farmers need to take their share from the drinking water supply networks to irrigate their lands. Unfortunately, this has created a tug-off-war kind of situation between the IDP camps and the local farmers. *"Sadly, we do not have rivers which are away from the borders; we have only two, Euphrates and Orontes, and they have rocky beaches and are far from the camps and making it difficult to pull the water. Taking all this into consideration, all the water resources in Syria are coming from wells and the wells are very deep as the level of ground water has been reducing due to the drought and low rainfall"* (Interviewee 7).

Qatar Red Crescent, along with Geo Expertise, worked on the rehabilitation of irrigation water supply networks project in the Ar Ruj Plain in 2017, where they had a positive experience working with and establishing several WUAs. *"We finished the project in 2017 and supported it with a few repairs in 2019 and up until now, it has been working very well. I am still talking about the technical side; however, these people have less experience in managing the project.*

We have an election for the WUAs and collaborate with the local councils. We also have a specific way of selecting the members of WUAs as a community, voting on it together in one meeting, amongst the selected nominees. This is a good system as it is democratic, which lays the foundation of a better society” said the representative of the said organization (Interviewee 4).

He further went on to comment on the cultural setting and grassroots politics that influence the working of these WUAs, and some of the limitations that surround this system. *“The Arabic culture can make it difficult. We have different sects and different families, and some of the land-owners and influential families sometimes insist on being a part of these associations, despite not having the capabilities. Village politics play an important role and preparing for these elections thus takes a long time as we have to study each family and person separately. WUAs do not have the power of law, so sometimes it becomes a hindrance in the redressal of problems or launching complaints. They can plan and manage water, but they do not have the power to prevent conflicts”* (Interviewee 4).

Despite its popularity and effectiveness to some extent, this model was also criticized during the interviews, as some project managers and field officers were skeptical about the capacities of the WUAs. It was discussed that such a model would work well for an irrigation project, however, its viability in the drinking water supply projects was questioned: *“How can a WUA work effectively in the drinking water sector as they are in charge of pumping the water for communities of more than 20,000 people? Northwestern Syria is controlled by different armed groups, so, establishing such a committee is very hard and the cost recovery mechanism is difficult to implement. Such a model might be successful in the Izaz district managed by the Turkish government as there is a provision for cost recovery and obtaining monitoring support there. However, I only see it to be useful for smaller communities and not for the larger landscapes”* (Interviewee 7).

- ***The Power of Local Authorities***

The local councils started functioning in 2014 and they are elected to manage the entire functioning of all the villages and towns. The elected or nominated members of these councils have been working voluntarily due to the ongoing war and there has been a lack of economic incentive for many years for these members, affecting their accountability and efficiency. Another national actor is the Syrian Interim Government. In 2011, they started as an activist group and were established as a party in 2013. This body represents all the Syrians outside the political regime holding some legal powers in their areas of operation. Although this is true, the officials expressed concerns regarding the management of water resources in areas where the regime has partial control over the water bodies (rivers): *“Every day, this region [al-Bab, northern Syria], needs approximately 25,000 cubic meters of water per day. Earlier, it was supplied from Euphrates River, but now, the river is under the [political] regime, and they do not allow water-sharing”* (Interviewee 5).

Sustainability of Water Projects

- **Funding, Financial, and Power Challenges**

Before the war, the water systems in Syria used to be subsidized by the government with an approximate expenditure of almost 200 million dollars yearly for regular rehabilitation, maintenance, and support, not taking into consideration the power supply since it was available for free from the national grid (Wash Cluster 2020). Currently, however, the Syrian water sector is hugely aid-dependent and when the funding is cut short, or in its absence, most projects lose their efficacy. Many interviewees also noted that the lack of funding remains a central problem, mainly because the donors tend to focus entirely on the emergency and relief operations and fail to take into consideration the need to establish sustainable systems and structures on the ground. Earlier, people used to pay fees for the water according to the usage, using the water meter. However, during the conflict people rely largely on the support of humanitarian organizations.

Cost recovery¹⁷ is a widely used system by different IOs and INGOs operating in many emergency contexts. It is implemented using an affordable and well-designed tariff system for water supply access.¹⁸ For the cost-recovery mechanism to be successful, many expressed the desperate need to create sources of income generation (in the water sector or otherwise) for the population, enabling them to pay for the most basic services. *“If poverty persists, it is difficult to solve any problem. Rehabilitation of infrastructure or access to water- both depends on having enough funds. If you don’t have money, nothing will move ahead. They [IDP communities] will simply move from one area to another area to find free drinking water”* (Interviewee 3).

- **Sustainability**

One of the most recurring responses in the interviews was the concern regarding the sustainability of water supply projects, that is, the state and future of these networks, once the concerned IO or INGO has left the area of operation, leaving no more funds to continue the project. The input given by the interviewee, from the UN FAO in Turkey, is interesting and important to capture. He believes that every organization needs to consider two things before they start implementing their projects, first is drafting a risk management plan and, secondly, establishing strong exit strategies. For the risk management plan, it is important to make the partners aware of the potential risks (security situation, authorities, target population, etc.) and anticipate them at the beginning of the project. Secondly, having a solid exit strategy is critical at the end of a project to determine the potential handovers and their existing capacities (local councils, WUAs, another INGO, etc.). In order to keep the system running, the organizations also need to put into place a system to generate income for the cost to be recovered in the future.

¹⁷ In water supply services, Cost Recovery means that the total revenue to the water system management equals (or exceeds) the cost of supply.

¹⁸ Internal working document provided by Interviewee 9

From his experiences on the field with the Food, Security, and Livelihood (FSL) projects in northwestern Syria, he elaborated on three major ways of making the beneficiaries a part of the implementation process: 1) participation, 2) engagement, and 3) involvement. *“Involvement is simply letting them know that we are doing a project and understand their thought process. If we want to engage them, we need to ask them during the need assessment and take their opinions and judgment into consideration. At the engagement level, we can ask them to volunteer in the project. Participation is the highest level, where we train them and share the costs of the project with these beneficiaries”* (Interviewee 6). Along with their involvement, it is important to raise awareness amongst the beneficiaries to utilize the existing infrastructure carefully. However, many narrated how it is difficult to change their mindset and habits since they engage with people having different ways of life.

Grassroots such as the WUAs have been an instrumental part of guaranteeing the sustainability of the water supply networks in the case study used for this thesis. Some interviewees expressed skepticism towards the role of such committees in ensuring sustainable water networks by saying that, *“...when you look at smaller groups, it becomes easier to start cooperative associations like this. It is complicated on a larger scale, where we are trying to cater to the needs of more than one million people...”* (Interviewee 2).

2.2. The Case Study

Background

This particular project was set up by Geo Expertise with an aim to restore and manage the water supply management system in Jalamah, Mirkan, and Jawban Syrian with a team of water engineers and technicians, operated by the water user associations in collaboration with the local population. The project aims to supply water to 21,600 people (out of which 50% are IDPs, having created seven water user associations. The locals (Kurds) and the displaced (Arab, Turkmen, from different parts of Syria such as Rif Damascus, Damascus, Homs, Aleppo, Idlib, and Deir Az Zour, etc.) have ongoing conflicts due to the ethnic differences, scarcity of resources, etc. The project also aimed to train three technicians per village in the management of the water supply network (water fee recovery, accounting, purchase of diesel for the generator, and in the maintenance of the pumping station and network (generator, pumps, purification unit, and the pipe network).

Context Analysis

Before the conflict, the water distribution network was entirely managed by the state. During the war, the government abandoned the management of drinking water pumping stations in areas that were out of their control, hence weakening their role. Different organizations and local councils have replaced the state agency in water management in the area out of control of the Damascus government, collaborating with local councils to manage and operate the pumping stations. The operation of these pumping stations normally is only ensured during the

interventions. Due to a lack of experience, competencies, and financial capacity, the Local Councils are often unable to manage the supply of water, making it essential for the concerned population to be closely associated with the project.

The Jalamah, Mirkan, and Jawban water pumping stations are located in the upper reach of the Orontes River basin (Map 1) to the west of Afrin. The Station of Jawban is used to supply the villages of Jawban, Kurdan, and Kuran. The Station of Jalamah is used to supply Jalamah villages (Map 2). In the Jawban and Mirkan station, the water is pumped from a well with a vertical pump, whereas in the Jalamah region, a horizontal pump is used to draw water from a spring to be supplied to the nearby villages. Before the intervention by Geo Expertise, the pumping stations in all three areas were operational, however, the local councils were unable to manage the supply of water and maintain its quality, due to a lack of experience and resources.

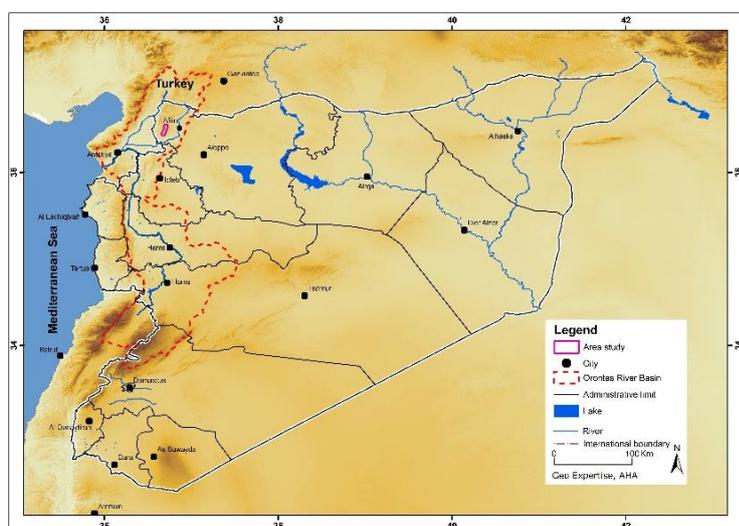


Fig. 8: Map (1) Area of study (Geo Expertise, 2021)

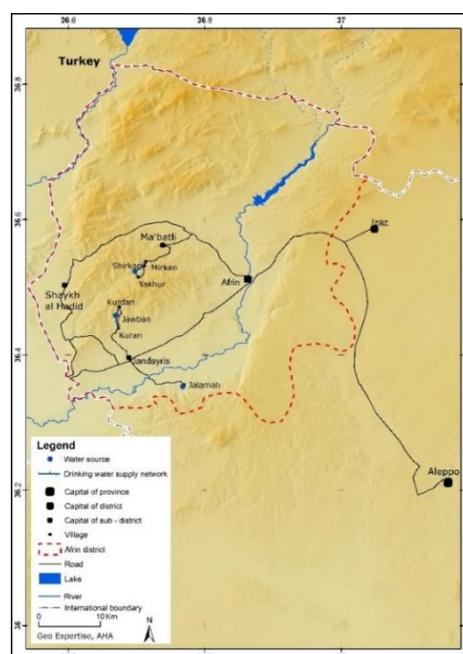


Fig. 9: (Map 2) Water resources in the region (Geo Expertise, 2021)

Before the project was implemented, the Jalamah spring source and the Mirkan water reservoir were contaminated, and the water was unsafe for consumption (Image¹⁹ 1, 2 & 3). Due to the massive influx of migration in the region, the spring basin was transformed into a wash area for the cattle and sheep's wool, carpets, and clothes. The water users were indifferent about the hygiene and sanitary conditions of the reservoir. This situation makes the basin environment fragile, the spring vulnerable, and the drinking water in danger of contamination. This situation has given rise to conflicts between the displaced and the local population.

¹⁹ All the images used in this section are provided by Geo Expertise. The image copyrights stay with them.



Image 1: The state of spring in Jalamah, before the implementation of the project.



Image 2: The state of spring and water infrastructure in Jalamah, after the implementation of the project.



Image 3: Water supply network rehabilitation work in Mirkan.

In these areas, the population relied on purchased water, of unknown quality, delivered by mobile water tanks. These water tanks cost around 7000 SYP²⁰ for an average family size of 7 people. Most families (both, locals and the displaced) cannot afford this and rely on unsafe sources of drinking water. In their full capacities, the Jalamah and Jawban stations have the capacity to provide safe drinking water to more than 19,000 people, however, there have been several difficulties in ensuring the continuous operation of drinking water stations.

The Model

1. Society & Actors

There are different layers of actors playing a role in this project: 1) **IOs, INGOs, and NGOs** (there are Currently, more than 30 humanitarian organizations are working in the Afrin area in different areas of operations); 2) **Local Councils**; 3) **Local Committees** (they are composed of village leaders, tribe *sheiks*, village landlords, and play an important role in managing the delivery of basic services to the population in collaboration with various local associations and voluntary groups. These are not fixed institutions; however, they play a reconciling role in the village dynamics and case of conflicts); and 4) **Water User Associations** (village & project level).

2. Water User Associations

Seven water user associations were established in three pumping stations: Jawban, Jalamah, and Mirkan. These WUAs are constituted at two levels:

- **Village level:** These are local committees composed of leaders and tribe *sheiks* from the village who influence the population, coming together to discuss the problems at the local level.
- **Project level:** The local committees then elect candidates to represent their villages at a project level, where they work together with the Local Councils and NGOs.

The WUAs meet once a month and aim to facilitate communication between the beneficiaries, Geo Expertise, and the administrative actors to ensure a fair and optimal distribution of water to meet the population's drinking water needs, collect financial contribution, reduce tensions, and enhance dialogue between local and displaced beneficiaries (Image 4).

²⁰ 1 USD= ~2513 SYP



Image 4: Water user association's monthly meeting, Jalamah.

Working Mechanism of Water User Associations (WUAs)

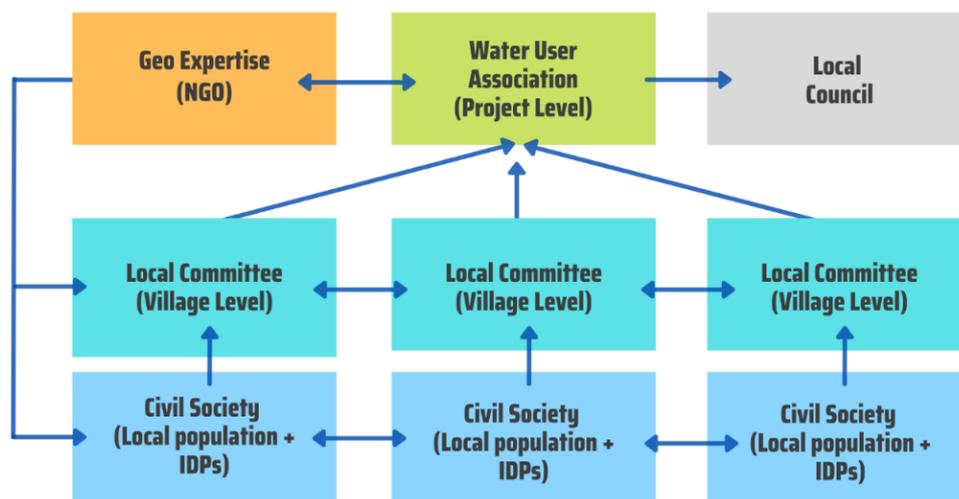


Fig. 10: Working mechanism of the WUAs, self-drafted (Geo Expertise 2021)

3. Community Collaborations

Collaboration between the local and the displaced population is still limited while the available human resources are complementary. Geo Expertise wants to illustrate with its model that water is a way of triggering collaboration between local and displaced people. The participation of the population in water management (water sharing and contribution to costs) through WUAs aims to achieve a common goal of improving access to water. The success of their collective work on water sharing encourages the population to launch collaborations in another sector to improve their socio-economic situation.

4. Cost Recovery & Sustainability

Sustainable access to water requires the availability of operating costs for drinking water stations. To achieve that, the project cooperated with the WUAs to develop a solution to ensure the sustainability of finance and operations:

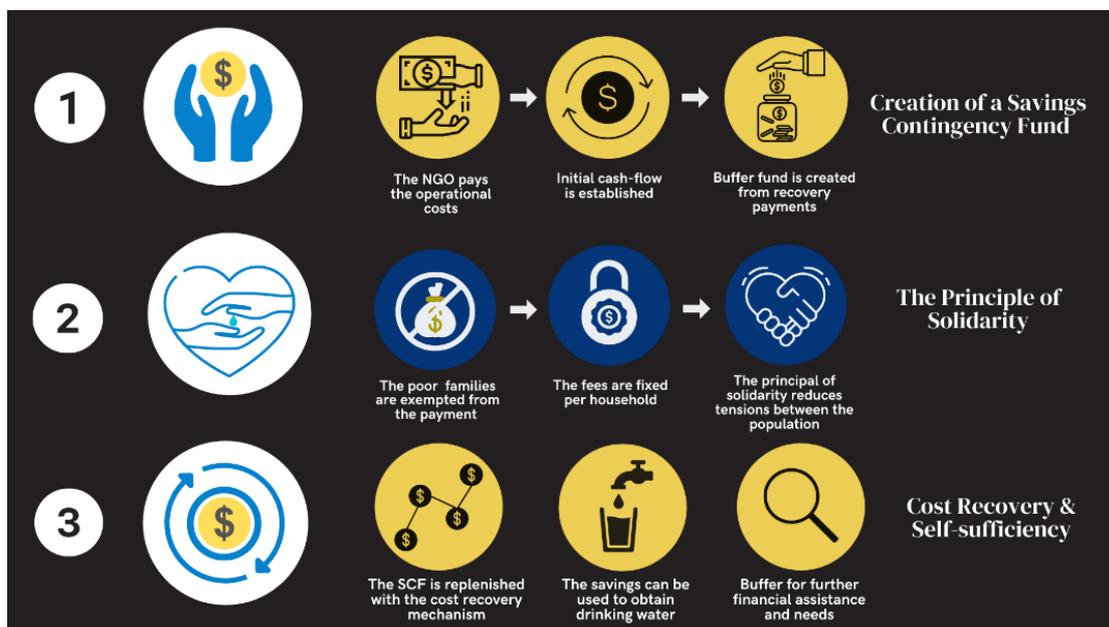


Fig. 11: Sustainable finance model of the project, self-drafted (Geo Expertise 2021)

- **Creation of a Savings Contingency Fund:** Along with the WUAs, we created a Savings Contingency Fund (SCF) with the charges collected from the beneficiaries during the initial months of project implementation. This fund was a result of the accumulation of water fees as the organization paid the operational costs for 3 months to demonstrate the viability of water supply networks and to allow the WUAs to establish an initial cash flow. This fund acts as a buffer, ensuring the alternation between receiving more funding from NGOs and cost recovery of the fees from the beneficiaries.
- **Principle of solidarity:** The collection of fees from the beneficiaries is based on the principle of solidarity, that is the economically marginalized families have been exempted from the water fee payment. The fees are set at 2,000 Syrian Pounds, (that is 2 dollars) per month, per household, and it is estimated that 5% of households would not pay the fee due to their economic situation.
- **Cost recovery and self-sufficiency:** The WUAs then resort to the SCF, which is replenished every month with the cost-recovery mechanism from 95% of beneficiaries. In the absence of a financing body or organization, the WUAs use this savings fund to finance the operation of the stations, ensuring the self-sufficiency (that is repairs, maintenance, and functioning) of the community water supply networks. In case further infrastructure development is needed, the WUAs and the village mayors, and local committees contact NGOs operating in the area for further financial assistance.

2.3. Impact

Once the project was implemented, Geo Expertise conducted 44 interviews with households (comprising of 69% men and 31% women, distributed across 41% displaced families, 59% local families) selected randomly in the three villages (Jalamah, Jawban, Mirkan) to gauge the impact of the project (Annex 4).

According to the survey, the majority of the population was satisfied with the quantity of water supply, however, it was discovered that the displaced population was less satisfied as their household often consist of more people and the amount of water provided per household is not satisfactory. Regarding the quality of water supply post-project, 93% of the interviewees responded satisfactorily. 93% of beneficiaries did not expose problems related to water sharing and it has been remarked that fair distribution of water between the beneficiaries (local and displaced) contributed to reduced tensions in the communities. The financial contribution beneficiaries (2000 SYP per household, per month) is acceptable for 91 % of households, but 30% of them face difficulties paying this contribution. The WUAs play an important role for 84% of beneficiaries and they believe that the WUAs do their tasks well. However, 14% of beneficiaries mentioned that they have limited capacities, or that the association members do not have enough time to respond to the requests of the beneficiaries. As a part of their vision to improve water access, 84% proposed to improve the technical aspects of the water stations, followed by better management (7%) and regulation of distribution (7%).

It was also learned that the time needed to build trust between beneficiaries and WUAs varies according to the socio-economic conditions of the beneficiaries. The WUAs have contributed to promoting individual responsibility towards collective infrastructure and increasing the cost recovery ratio. The discussion related to water sharing between the locals and the displaced helped to reduce prejudice against others. This platform created a space to discuss the sharing of water as an opportunity to discuss other problems in the village.

Chapter 3:

Reinterpreting Hydro-social Cohesion

3.1. Redefining Social Cohesion

Prior to the fieldwork, I used the definition provided by Chan et al. (2006)²¹ to operationalize my data collection, as it was assumed to be one of the most minimalistic definitions of the term, cutting through the clout of similar-sounding terminologies. However, it was challenged due to its lack of context, and it faced multiple limitations during my field interactions, preventing me from grasping the entire reality. This encouraged me to attempt to redefine social cohesion for this study. In the context of this thesis, a major dilemma revolved around whether I can use this term as a unit of analysis for a fragile society, which is indeed realistically far from the state of cohesion. Drawing upon the review of the numerous definitions, I attempt to provide a cleaner, functional definition of social cohesion in this section.

Taking into consideration the context of the study, the problem at hand, and the research premise, the following definition of social cohesion will be operational for the analysis.

“Social cohesion in a fragile society is an ongoing, continuous process of creating safe spaces of solidarity for diverse communities, based on the sense of trust, empathy, and belonging; with the aim of cultivating and developing shared social identities and values, stemming from shared challenges, and facilitating behavioral manifestations of collective participation and action for the common good of all”.

Unpacking the Definition

Attempting to define social cohesion in a conflict-ridden, fragile society is not just a matter of using the correct terminologies, but carefully recognizing the seen and unseen parameters to make sense of the reality. With the above definition, I attempt to give enough flexibility to interpret the diverse realities, and at the same time capture the problems, values, goals, and prerequisites of understanding the process of birthing cohesion. I also aim to flatten the skepticisms that echo the impossibility to achieve cohesion in a conflict, and rather broaden the understanding of the concept in the light of real-world challenges.

From my personal experiences during my fieldwork, I have observed that the feelings of social cohesion in a fragile society can be something as simple as the acts of going to the vegetable

²¹ “Social cohesion is a state of affairs concerning both the vertical and the horizontal interactions among members of society as characterized by a set of attitudes and norms that includes trust, a sense of belonging and the willingness to participate and help, as well as their behavioral manifestations” (Chan et al. 2006).

market and feeling safe; or a woman chatting with other women from the hood about their daily routines at the community water well; or having your new neighbor over for a cup of coffee. Instances like these demonstrate the receptivity, affinity, and shared identities of the members of the society, which are both, contextual and universal at the same time. However, in a more organized manner, I have attempted to unpack the essence of social cohesion in conflict with the following nine terms.

- 1) **Fragile society:** The definitions of social cohesion coined so far have seldom made references to the type of society that these relationships are situated in. As the element of contextualization has a strong presence in my arguments, I chose the context to be included in the definition, as its other elements are especially suited for a fragile society.
- 2) **Ongoing & continuous process:** As previously stated in the literature review, my interpretation of social cohesion is not an absolute state of affairs, as put forth by The Government of Canada's Policy Research Committee in their definition. It is rather an imperfect, ongoing, and consistent process of the development of social bonds. It is a "by-product of routines", everyday interactions, and behaviors.
- 3) **Safe spaces of solidarity:** I considered that the notion of "safe spaces" should be at the heart of the definition. For the cultivation of cohesive relationships in a highly volatile context, it is crucial to identify such intermediary spaces, which are free of, or at least far from exclusion, discrimination, and suffering of any kind. The notion of *asabiyyah*, which essentially denotes group solidarity, is a natural, instinctual characteristic of a solid community, especially in the Arab world.
- 4) **Diverse communities:** Including a connotation of diversity is essential to the very scope of cohesion, as intergroup and intragroup dynamics play a huge role in making or breaking the spirit of social cohesion, especially in a volatile context.
- 5) **Trust, empathy, belonging:** Feelings of trust, belonging, hope, care have been recurring in many definitions in the past. However, more than just emotions, the above definition considers a spectrum of intentions and attitudes towards oneself and one another. I argue that the sense of trust, empathy, and belonging capture the most essential shades of affinity contributing towards the formation of bonds.
- 6) **Shared social identities, values & shared challenges:** Shared values have been integrated into a lot of other definitions, especially in the one proposed by Jenson (1998), as they are the glue to the group feeling. Shared social identities, however, surpass the obligation of mere kinship as the foundation for social cohesion, and establish a more inclusive space to recognize and establish merged, shared identities, often stemming from the common and shared challenges. In a context of crisis, it is especially important to draw upon these newly formed social identities, to better understand how the members of the society perceive each other, irrespective of their origins.
- 7) **Behavioral manifestations:** Borrowing from Chan et al. (2006), behavioral manifestations are critical to gauge the true sense of cohesion in a community, as mere feelings and expressions may not always translate into efforts and actions. This clause

will help identify the gaps between emotions and their manifestations in a group, contributing to the deepening or loosening of bonds.

- 8) **Collective participation & action:** As forms of the behavioral manifestations and focusing on the “collective” aspect of participation and action, the definition reemphasizes the community's urge to come together to find solutions to the previously mentioned “shared” challenges. It brings in the aspects of coordination, co-dependence, and unity to help create symbiotic relationships in the community.
- 9) **Common good for all:** The notion of common good suggests the well-being of all the members of the society and the exclusion of none.

Integrating Water

The research premise focuses on the “hydro-social” interactions, that is, exploring how water influences the social routines and how its collective management can enhance resilience against the dismantled governance systems. In my analysis, I consider how the shared challenge of inadequate access to water, can be an enabler in constructing these safe spaces of solidarity and mobilizing people for collective participation and action for governing the resource. The data collected keeps water management central to its scope and gathers responses from the beneficiaries and stakeholders of the community-based water governance model.

3.2. Results & Interpretations

In order to testify the presence or absence of social cohesion as a result of the community water management mechanisms, it is imperative to reflect upon the ongoing and continuous hydro-social processes that surround, affect, and shape the day-to-day experiences and routines of the different communities in northwestern Syria. Amongst the bigger interrogations, many intricacies need to be addressed.

Have these communities formed systematic relationships with water, and what have been their responses to the volatility of water resources? Is water a strong enough variable to trigger changes in the social interactions and create mutual spaces of exchange; and who exactly is building these spaces of hydro-solidarity to mobilize resources for all? Are these mechanisms truly community-based? Are they decentralized, or also participatory? Has the conflict built resilience in communities or provoked distortions; and how do these multi-ethnic communities co-exist amidst the scarcity of basic needs?

The following patterns have emerged from various conversations, discussions, and 32 semi-structured interviews that I conducted for my research. I wish to critically analyze some of the broader themes, expressions, and opinions²² that came up during the interview process in this section, attempting to situate them in one or more of the nine pointers used in the definition

²² All the quotes in the analysis have been interpreted and translated from Arabic.

above. Moreover, I seek to provide answers to some of these questions to get to the core of my interpretation of hydro-social cohesion.

Shared water management processes have significantly helped in reducing conflicts between communities over access to water.

Apart from the current political climate, one of the major factors of forced displacement in Syria is the lack of access to water. *“Today, I am living here because I get water twice a week, tomorrow, if I don’t, I need to move my family elsewhere”* (Person 2). Through my survey interviews, it was reiterated by the beneficiaries of the Geo Expertise project, that mechanisms such as the WUAs that involve the water users, local councils, and other actors have led to a fairer and more equitable distribution of drinking water. This also impacted how the communities looked at each other since the presence of the other did not take away from their share of resources. There have been instances of friction between the local community and displaced people before such a system existed in Mirkan: *“...many IDPs have sheep which used to bathe in the same water body from where the locals used to their get drinking water”* (Person 8). From the narratives like this, it can be deciphered that the root of the conflict between these communities is not of animosity or disregard for the culture of the other, but it is rather a shared challenge of acute scarcity of water that resulted in such behaviors. There is often a sense of fear of being left with little for their own kin, and the distress of encroachment that leads to the formation of negative stereotypes for the outgroup.

The respondents also testified to willingly come together to participate in the community effort to solve any water issues and to peacefully negotiate with each other and the WUAs. *“We need to help and contribute to the water management efforts for the networks to be up and running, and I will continue to do so”* (Person 4). Water user associations were unanimously rated very positively by the respondents living in the area with one (Annex 3). Prior to the intervention by Geo Expertise in this area, the water pumping stations were not functional, and the communities lacked the technical expertise to maintain the state of infrastructure. *“Water user associations have helped resolve the conflicts. Before their creation, the situation was not good, and the tanks were expensive”* said the mayor of Shirkan village who is also a representative of the WUA in their village (Person 5). The mayor of Jalamah remarked, *“...for the past three years, the WUAs have helped solve the problem of water in this area. These units distribute water to both the IDPs as well as the locals, consistently reducing the probability of conflict between them”* (Person 7). In another conversation with a woman interviewee, originally from Homs and displaced to Jalamah, I learned that the water quality and quantity have improved drastically in the past year. She said, *“it is more organized, and we get the supply water regularly or four times a week, and there are no evident problems. The WUAs are doing very important work as they divide units and give equal amount of water to all, the displaced families as well as the locals”* (Person 11). The WUAs not only made an equitable distribution of water possible but also based the cost recovery process on the principle of solidarity, exempting the marginalized families from the brunt of payments (Annex 5). The

interviews were conducted a year after the intervention by Geo Expertise, and these testimonials reveal a sustained, consistent, and continuous process of improvement in the access to basic resources.

Some respondents from the local population shared stories to express their care and respect for the IDPs and narrated anecdotes like: “...once, I diverted the water supply from my house to my neighbor’s house, who had just moved in from another town” (Person 3). While this might truly be a benevolent demonstration of solidarity, I am skeptical to use such narrations sans immersion or observations to conclude the presence of solidarity. However, such an expression certainly shows the absence of feelings of fear and hatred towards a distinct community, emitting an empathetic, caring mindset that is conducive to the formation of a cohesive community.

It is also interesting to note that out of the 17 survey interviews conducted, only a few members were an active part of the WUAs, however, all of them were aware of these systems and the channels of collaboration and negotiation. This act of willingly coming together to manage or share and share a scarce resource such as water can be interpreted as a notable behavioral manifestation, representing collective effort, participation, and action for the common good of all the members of the community.

Communities from the areas with proactive water user associations are more satisfied with the water access and quality, than the ones without.

Having revisited the viability of shared water management systems, it is also important to compare and contrast the potential scenario in the absence of such mechanisms to obtain a complete picture. Out of the seventeen interviews conducted, four respondents were residents of areas outside the reach of the Geo Expertise operations and are linked to different local councils. It can be observed that the testimonials from these respondents were extreme outliers in my assessments, as most of their responses reflected upon their gloomy experiences of suffering. “We get our water from the local mosque as the local council [Mabatli] cannot provide us with water and there isn't any pumping station nearby,” remarked a fifteen-year-old boy, originally from Hama, now living on the outskirts of the Afrin region. These responses were not only related to water distress, but they also reflected an overall strenuous societal fabric. He went on to say, “...the Kurdish [local] people are not kind to us, I think they hate us. I wanted to collect sticks to make bread and the local people didn't let me take them from their trees” (Person 9). His uncle (Person 10) is an *imam* at the local mosque and expressed severe discontent about the water supply networks in his area. What he said next truly exposes the harsh reality on the ground: “I had to break my fast one evening, and I didn't even have a glass of water to drink. Only a single truck brings a cubic meter of water to us, and its quality is really bad. Many organizations have made false promises to us to solve our water problems in this area, but they never returned” (Person 10).

These stories establish a probable correlation; inadequate access to basic needs negatively affects the social fabric of society. Especially when the resources are scarce, their efficient management becomes crucial to prevent socio-economic frictions. In a society that is already experiencing a crisis, this added layer of suffering is an obstacle to its recovery. Scarcity and mismanagement of a basic resource such as water can produce frustration, antipathy, and disharmony in society, hampering the creation of the “safe spaces of solidarity”.

The establishment of institutions such as the water user associations requires organized effort, adequate resources, and coordination with different actors.

Conventionally, water user associations have been formally or informally organized, democratic institutions with a collective aim of managing water resources, typically for an irrigation system. The traditional agrarian systems and irrigation landscapes in many countries have had a specific culture of water cooperation and sharing, corresponding to the overall socio-geographical structures, and hence make it relevantly facile for institutions like the WUAs to anchor themselves in the societal structures. From the case study of north-western Syria, such associations have also been operational for the management and distribution of drinking water, and water for basic needs in conflict. During my interviews, several practitioners remarked that the establishment of such institutions requires coordinated effort with the diverse actors on the field.

On a first look at the model, the WUAs imply a grassroots, community-based, and self-organized, voluntary association, established to achieve self-sufficiency of a basic resource. However, this may mean that the initiative to establish such an association also lies within the users. The question is that who is building these spaces of collective work and with whom does the enterprise lie? Are these systems purely grassroots or does it require an external facilitator or an agent of change? It is clear from the patterns of the case study, that it requires massive resources such as the presence of an organization bringing funds (INGO/ NGO), the support of the local councils, minimum water infrastructure, as well as training for building capacities of the representatives, taking away much of its entrepreneurial credibility. The water users certainly play the role of benevolent contributors, and eventually important decision-makers, however, they are not the makers and drivers of such a system. It has been observed that once these WUAs are established, some of them continue their operations even in the absence of other actors, and the others rupture due to the lack of resources.

Several practitioners also remarked that the system of WUAs for drinking water may only work on a smaller level (ex: a group of few villages in a region), catering to the needs of limited people, however, such a decentralized model may not always be effective on a larger scale (ex: the large, and densely populated governorates like Idlib in north Syria). They also critiqued the long-term viability of a system based on volunteerism since most of the work of the representatives is unpaid and unincentivized.

Despite this, I argue that the mere presence and continuity of such community-based associations in a conflict-ridden society is an important indicator of social cohesion, as it demonstrates a shared response to the shared challenges. A solution like this may be imperfect and face logistical limitations, however, it ceases to just be a group of people, instead, it metamorphoses into a mutual space inviting dialogues, discussions, and conversations on topics beyond water issues (Geo Expertise 2020).

The conflict has reinforced a shared social identity.

Drawing upon the conflict-cohesion hypothesis by Bernard & Doan (2011) referred to in chapter one, I argue that there has been much subtle evidence in the conversations and interviews about the role of conflict in unifying people and reorganizing the social structures. Such an “intergroup” conflict plays a vital role in influencing the “intragroup” relations (Ibid 2011). Almost everyone I spoke to informally, even outside of the research context commented proudly on the sentiment of being a Syrian. *“In Syria, people usually trusted each other, and they still do. Most humanitarian work in Syria is done by communities or people themselves, without any formal channel. At a societal level, the trust is already present as the “Syrian people” have always been one”* (Interviewee 4). Phrases like “we Syrians” or, “we are all one” were commonly voiced in several conversations.

In the current landscape, people of multiple ethnicities and tribes live together in the north of Syria, however, this heterogeneous group together has formed a common identity based on the shared inkling that is shaped by political, religious, and ideological suppression. It would perhaps be a hyperbole if I argue that their own socio-cultural and religious identities have faded away; as a matter of fact, they have not. Through the survey interviews, it is evident that these communities are well aware of the differences in their respective lifestyles and value systems (Annex 3), however, their shared vulnerabilities and sufferings have given rise to a new social identity of being a survivor. Evidence also shows that although people are skeptical to trust, they are willing to help each other and are aware of the limitations of the local authorities. *“People did not just displace physically, their dreams, hopes, and futures have been uprooted. The future seems black for all of us, and at the same time, we are in a new place, and we don’t know for how long...”* (Interviewee 10).

When asked about their individual identities, there was a distinct sentiment of belonging to the nation first, followed by their religion (Annex 3). This is a remarkable indicator of social cohesion. Despite being bifurcated and divided in the current situation, a sense of belonging to the idea of what their nation once was, and what it could be one day, has been keeping these communities bonded and connected. Despite the chaos, there is much hope: *“...in Syria, the situation before the revolution was mostly peaceful and cohesive, there were no differences, in fact, we are still the same people. However, this is a man-made crisis, and once it is over, we will reconcile in no time...”* (Interviewee 6).

There are vast gender disparities in the water management networks.

Research reveals that communities flourish socially, economically, and environmentally when women influence the management of water resources (Trivedi 2018). In many developing countries, women are the prime water managers and carriers in households however, there is a significant absence of women decision-makers and project managers on a policy and implementation level in the water sector. Although the Geo Expertise model had several women managing projects on the field (Image 5 & 6), this is the case for most other water projects in north-western Syria.



*Image 5 & 6:
Women's
engagement in Geo
Expertise water
supply projects.*



Gender roles were evident and visible, and sadly they were not challenged. To get to interview a woman beneficiary was rare and difficult, and the ones I interviewed had very little time or had their husbands verifying and correcting their answers, while they had a crying child or two

on the lap. Men, on the other hand, had a lot of time to finish their interviews. Women rarely held positions of political and social power in the WUAs or at the local councils. On being asked about their participation and willingness to contribute to the community effort to solve water issues, one of the interviewees said while her husband prompted from behind: *“I do not want to participate as my religion doesn't allow me to do so...”* (Person 11). Another woman explained, *“I cannot help, even if I wanted to. I cannot read or write...”* (Person 12). The households that I visited did give importance to women, but mostly viewed them as child-bearers and homemakers, and sadly, it was not out of a choice given to them. When I tried to engage in discussions with the men I was regularly interacting with, I heard astonishment and denial about the possibility of reversing gender roles.

Although very few definitions of social cohesion focus majorly on the gender dimension, the lack of representation of women translates to an overall violation of the narrative of “collective effort”. This state of women also demonstrates many other extreme forms of social evils and injustices that exist in society. Social cohesion implies a whole of society approach, and when half of the society is suffering, the process of cohesion will always be hampered. Hence, mainstreaming gender in the water management processes is not only beneficial for the resource governance process itself but also puts into practice the principle of “common good” for all in society.

3.3. Discussion

Scope & Limitations

Before moving on to the conclusion, I find it important to discuss the scope of the results to avoid generalizations and further reiterate that this research is a limited, small-scale illustration of a much greater hypothesis.

Commencing with the positives, the arguments presented in this thesis are based on two different types of interview processes. Having conducted fifteen solid interviews with practitioners and field representatives in the humanitarian landscape allowed me to have a solid grasp of the reality, which was essential for the anchoring of this study. The other seventeen interviews with members of different communities, villages, and origins allowed me to expand my perceptions and interpret the actualities more rigorously. However, it is still a minuscule sample to draw permanent and concrete conclusions upon. My actual interpretations of hydro-social cohesion in a particular region may subtly vary with a different set of data, nevertheless, the broader conclusions remain the same. The second set of interviewees was chosen mainly in coordination with the field contact person, based on their availability and willingness to speak about their experiences. This might have resulted in a bias and reflected so in the nature and quality of the responses. For further studies with a broader scope, the analysis can be enriched by involving a larger sample (ex: all the residents of the village, or a local council), to have more accurate findings.

The data obtained, and the interviews conducted were at a particular point of time in the society. There is no data or similar research conducted in the earlier or later stages in the timeline. While the geopolitical situation in the country is constantly shifting, the lack of spatial and temporal variation limits the scope of the findings and only assesses the state of cohesion in the society at a given point in time, hence limiting the quality of the analysis. One of the major hurdles encountered during the field research was my inability to speak and understand Arabic. Despite the presence of an interpreter, some crucial aspects of conversations and remarks were lost in translation. This was also a limitation for asking more detailed and intimate questions and fully capturing the essence of the local and cultural notions of social cohesion.

Although I was living three kilometers from the Syrian border, I was unable to enter the country due to the ongoing civil war. This forbade me from immersing in and observing the local water management structures and community interactions firsthand and had to limit myself to talking to the community members through video calls, limiting the quality of interactions. Lastly, the interpretations of hydro-social cohesion provided in this study are my own interpretations, making the analysis highly subjective. Another researcher may choose to look at this research premise differently, stemming from their personal and academic expertise.

Conclusion

A commentary on the various challenges and dimensions of hydro-social cohesion brings us to the final verdict, revealing its likelihood or impossibility. In my interpretation, I believe that hydro-social cohesion is a continuous process that can be ongoing in the most mundane routines of a fragile society; however, it has some essential prerequisites. A society dipped in fear, uncertainty, and suffering is different from a peaceful, stable context. The latter has its own systemic issues, however, the former calls for a more cognizant, empathetic, and prudent approach to tackling the added layers of frictions.

For a true social transformation to take place, the humanitarian aid landscape needs to do so much more than investing in short-term, project-based interventions, as they will only result in unsustainable and quick-fix solutions, hampering the overall development trajectory. In the current landscape, the international and local donors and I/NGOs have a bigger role to play, than that of philanthropists and service providers; they need to be the facilitators, willing to co-develop solutions along with the local communities. The foreign-aid philosophy of “working for” needs to translate to “working-with” for long-lasting and sustainable solutions, ensuring higher levels of participation and engagement of the civil society. Along with that, the local councils and the aid organizations must focus on income generation which is a crucial requisite for achieving self-sufficiency of basic needs resulting in longer-term socio-economic well-being. Capacity bridging activities need to be given a high priority to develop in-house expertise and maintain the root infrastructure steady. Apart from the aforementioned necessities, on a more grassroots level, women need to be more involved and engaged in water projects, holding socially powerful and influential roles. This will not only result in better societal balance but also a more intuitive water governance process from an eco-feminist perspective.

While revisiting the hypothesis, it is imperative to discuss how my analysis answers to the intricacies of my research premise. Postulating water as an enabler or a social lubricant is not an arbitrary choice, rather, it highlights an inherent bond between natural resources and social relationships which has existed through the course of many civilizations. In what manner the communities respond to the abundance or scarcity of basic resources such as water, and how they mobilize to access and govern these resources in a setting of crisis speaks volumes about the hydro-social ties. To establish a correlation, if water triggers conflicts, it can also be a catalyst for peace and harmony in a given society. Moreover, in a fragile circle, when a centralized system has been disrupted, community-based water management mechanisms serve a dual purpose of improving access to water and foster hydro-social cohesion in communities.

The findings of this thesis demonstrate how these mechanisms do not just operate in silos, but indeed cause a ripple effect that expands to other dimensions of life in these communities, providing a mutual, safe space for community building. It is only then that such a

heterogeneous society can coexist and thrive, avoiding frictions caused due to the unavailability of basic needs. Once the population has been given enough for their needs, the trajectory of a vulnerable society can drastically transform from exigency to development, even in the context of an ongoing crisis. That said, it is imperative to recognize that these ripples of change are born out of a continuous process of hydro-social interactions.

To conclude, the case of water user associations and community water management in the Afrin region in northwestern Syria has demonstrated the possibility of revitalizing social ties and bonds even in the light of crisis. Community approaches to managing water have not only improved access to water and reduced the burden of payments, but also strengthened inter-community bonds and fostered dialogues beyond the questions of scarcity. A rehabilitation model like this can spark a transfer of power, ability and confidence in the refugees and the local populations, by making them the governors of their own resources. This has a significant impact in contributing to a stronger foundation of the “new” Syrian society which needs to be immune to or prepared for weak state services and formal government structures, even in a post-war scenario. Such systems also pave the way to create a culture of inter-community, inter-territory, and transboundary water sharing and water cooperation, which is of incredible importance in the coming days for a country like Syria.

Hence, the study posits hydro-social cohesion as an ongoing, context-sensitive, and elusive process, as opposed to the idea of a perfect state of the society, while elaborating on several essential prerequisites. It further appeals to acknowledge and utilize the understanding of hydro-social interconnectedness in the broader peacebuilding nexus in other fragile contexts.

The key findings of this research can be resumed as follows:

- The conflict has reinforced a shared social identity.
- The lack of access to water in northern Syria is not just an availability problem, but it is a finance, management, and governance problem.
- The humanitarian aid landscape in northern Syria is characterized by project-based, short-term interventions, hampering the sustainability of water supply projects.
- Shared water management processes have significantly helped in reducing conflicts between communities over access to water.
- Communities from the areas with proactive water user associations are more satisfied with the water access and quality, than the ones without.
- The establishment of institutions such as the water user associations requires organized effort, adequate resources, and coordination with different actors.
- Community-based water management mechanisms serve a dual purpose of improving access to water and foster hydro-social cohesion in communities.
- Social cohesion, especially in a fragile context, is an ongoing and continuous process, and not a perfect state of the society.

Annex

Annex 1: List of Interviewees

**The names of the interviewees have been removed to protect their identities.*

Part A:

Interviewee Number	Organization
Interviewee 1	Syria Relief
Interviewee 2	GOAL
Interviewee 3	SKT
Interviewee 4	Qatar Red Crescent
Interviewee 5	Syrian Interim Government (SIG)
Interviewee 6	UN FAO
Interviewee 7	Shafak
Interviewee 8	URC (Urban Research Centre)
Interviewee 9	IYD
Interviewee 10	Kids Paradise
Interviewee 11	Al Amal (Hope) for Development and Social care
Interviewee 12	Karam Foundation
Interviewee 13	Insan Charity
Interviewee 14	Al Usra
Interviewee 15	Adalet Insani Yardim Dernegi

Part B:

Interviewee Number	Gender	Local/ IDP
Person 1	Male	IDP
Person 2	Male	IDP
Person 3	Male	Local
Person 4	Male	Local
Person 5	Male	Local
Person 6	Male	Local
Person 7	Male	Local
Person 8	Male	IDP
Person 9	Male, Minor	IDP
Person 10	Male	IDP
Person 11	Female	IDP
Person 12	Female	Local
Person 13	Male	IDP
Person 14	Female	IDP
Person 15	Male	Local

Person 16	Male	Local
Person 17	Male	IDP

Annex 2: Interview Questionnaires

Part A:

1. The war has been destructive in terms of infrastructure and societal disruption. War has deep effects on the social relations of people (level of trust, cooperation, sense of belonging, etc.) In the case of Syria, what has been your experience?
2. Why do you think so, to what extent?
3. Do you feel that there is a possibility to improve social relations (social cohesion)? If yes, how? If not, why?
4. In the future, even if the political regime changes, the rehabilitation, and reconstruction of society take time, and the society may remain in conflict. In such a case what can be done at a societal level to enhance social relations?
5. In your experience, can water be a way to get the communities together and establish a dialogue?
6. What are the recurring problems in water management in north-western Syria?
7. What according to you is a cohesive society?
8. What are some of the key opportunities and challenges in the Syrian water sector today? What is working and what is not?
9. What do you think of project-based impact assessments?
10. How do you ensure the sustainability of the projects? Once the funding is over and the organization exits a particular setting, what happens to the existing systems networks?
11. Are people receptive to change/ or participative in the development work in your experience?

Part B:

Qualitative Questionnaire:

1. What is your situation like when it comes to access to water resources? Water for basic needs (drinking, washing clothes, sanitation, etc.)? Has it improved in the recent past? What are the recurring problems?
2. Do you feel that the water user associations play an important role in water resource management?
3. Do you feel represented? Do you wish to participate in the process of managing the water resources?
4. How would you describe the importance of water in your and your community's life?
5. What do you feel is a threat to your well-being in the current setting?
6. Do you feel happy? If yes, why, if no, why?

Survey Questionnaire:

**Note: The Other group is used as a term in this questionnaire to avoid discrimination. If the local population is interviewed, the Other group refers to the displaced families and vice-versa.*

Section I: Core Indicators

Attitudes

Please indicate how positively or negatively you feel towards the targets below using the provided 5-point scale. A higher number indicates more positive feelings towards the group, while a lower number indicates more negative feelings towards the group.

Very Negative	Negative	Neutral	Positive	Very Positive
1	2	3	4	5

1. Residents of the town or the neighbourhood	1	2	3	4	5
• Displaced families (Arab/ Turkish refugees) (The Other group)	1	2	3	4	5
• My sect/ community	1	2	3	4	5
• Water User Associations	1	2	3	4	5
• Local Councils (Committees)	1	2	3	4	5
• International NGOs and Humanitarian Organizations	1	2	3	4	5

Collective Action

Question	Very large extent	Large extent	Certain extent	Little extent	Not at all
To what extent are you willing to participate in the community-effort to solve the water issues in your day-to-day life?	1	2	3	4	5

Question	Very probable	Probable	Not probable	Not probable at all

In your opinion, what is the probability of a conflict arising between the locals and the displaced populations (your group and the Other group) in the upcoming month due to water resources?	1	2	3	4
--	---	---	---	---

Question	Very large extent	Large extent	Certain extent	Little extent	Not at all
How willing are you to peacefully negotiate these issues with the help of the Water User Associations?	1	2	3	4	5

Question	Very large extent	Large extent	Certain extent	Little extent	Not at all
To what extent would you support a conflict between your community and the Other group?	1	2	3	4	5

Section II: Medial Indicators

Identity:

Who do you identify as?

A Syrian National Kurd Arab Turkman Muslim
Other

Below you will find statements about your identity. Please use the 5-point scale to indicate the degree to which you agree or disagree with these statements using the scale below.

Very large extent	Large extent	Certain extent	Little extent	Not at all
1	2	3	4	5

My identity is defined by my belonging to:

• My family/ parents/ children	1	2	3	4	5
--------------------------------	---	---	---	---	---

• My town	1	2	3	4	5
• My community/ sect	1	2	3	4	5
• Syria	1	2	3	4	5
• My religion	1	2	3	4	5
• No one	1	2	3	4	5

Emotions:

I'm concerned with the welfare of: (you can choose to answer the ones you want to)

• My family/ parents/ children	1	2	3	4	5
• My town	1	2	3	4	5
• The Other group	1	2	3	4	5
• My community/ sect	1	2	3	4	5
• Syria	1	2	3	4	5
• My religion	1	2	3	4	5
• No one	1	2	3	4	5

To which extent do you feel each of the following emotions towards the Other group?

Very large extent	Large extent	Certain extent	Little extent	Not at all
1	2	3	4	5

• Fear	1	2	3	4	5
• Anger	1	2	3	4	5
• Compassion	1	2	3	4	5
• Respect	1	2	3	4	5
• Hatred	1	2	3	4	5
• Affection	1	2	3	4	5

Trust:

Question	One must be careful			Most people are trustworthy	
Generally, do you believe that most people in your locality are trustworthy, or you need to be careful while dealing with them?	1	2	3	4	5

Question	Most people prioritize their interest			Most people try to help others	
Do you believe that most of the time people try to help each other, or do they prioritize their interest at the expense of the others?	1	2	3	4	5

Please indicate the extent to which you trust each of the following institutions: Please indicate the extent to which you trust each of the following institutions:

Not at all	To some extent	Moderate extent	High extent	Highest extent	I don't know
1	2	3	4	5	0

• The International NGOs/ Humanitarian Organizations	1	2	3	4	5	0
• Local Committees	1	2	3	4	5	0
• Water User Associations	1	2	3	4	5	0
• The Other group	1	2	3	4	5	0
• Your sect/ community	1	2	3	4	5	0

Section III: Peripheral Indicators

Threat perception:

If you are one of the chief organizers of the Water User Associations, could you please tell us if there are any other groups in society that your organization(s) will:

- A. Regularly cooperate with? (please specify)
- B. Be unwilling to collaborate with? (please specify)

The following are statements about the Other group. You might find yourself agreeing with some of them and disagreeing with others to various degrees. Please indicate your reaction to each of these statements by circling the number closest to your position:

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

• My group and the Other group have very different values	1	2	3	4	5
• The way of life (lifestyle, habits, etc.) of my group differs from that of the Other group	1	2	3	4	5
• The Other group doesn't understand the way my group views life	1	2	3	4	5
• When the Other group makes economic gains, my group loses out economically	1	2	3	4	5
• I am afraid that the Other group would reduce my access to the water resources	1	2	3	4	5
• I am afraid that the Other group would harm my social status	1	2	3	4	5
• The government (local committee) is weak in the protection of its citizens	1	2	3	4	5

To what extent do you think the local committees protect the following rights and freedoms?

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

• Freedom of belief	1	2	3	4	5
• Freedom of expression	1	2	3	4	5
• Freedom of organization (forming associations, etc.)	1	2	3	4	5

Justice:

Not at all	To some extent	Moderate extent	High extent	Highest extent
1	2	3	4	5

Please indicate to what extent:

• Is the state capable of providing the population with access to water resources for basic needs?	1	2	3	4	5
• Is the state providing enough services in WASH for the local population as well as the displaced?	1	2	3	4	5
• Do you feel that you have mechanisms to voice your concerns and do these procedures bear outcome?	1	2	3	4	5

The following questions refer to representatives of the administrative and governmental authorities. To what extent did they:

Treat you politely?	1	2	3	4	5
Treat you respectfully?	1	2	3	4	5
Refrain from giving inappropriate remarks or comments?	1	2	3	4	5

The following questions refer to representatives or authorities of the Water User Associations. To what extent did they:

Treat you politely?	1	2	3	4	5
Treat you respectfully?	1	2	3	4	5
Refrain from giving inappropriate remarks or comments?	1	2	3	4	5

Contact Quantity and Quality:

Not at all	To some extent	Moderate extent	High extent	Highest extent
1	2	3	4	5

What is the frequency with which you do the following?

Meet with the outgroup (displaced or the locals) in the town?	1	2	3	4	5
Spend time with the outgroup (displaced or the locals) in the town?	1	2	3	4	5
How often do you help your neighbours/friends on matters like household work, financial problems and emotional problems?	1	2	3	4	5

Please indicate how positive or negative was your contact with (outgroup) by circling the number closest to your sentiment:

Very Negative	Negative	Neutral	Positive	Very Positive
1	2	3	4	5

• Meet with the outgroup (displaced or the locals) in the town?	1	2	3	4	5
• Spend time with the outgroup (displaced or the locals) in the town?	1	2	3	4	5

Participation and Representation:

Could you describe your depth of participation in community activities/ organizations/ associations?

Mere members

Regular event helpers

Chief organizers

Did you/ do you participate in the community water management processes?

Yes No

Do you feel represented in the water management process?

Yes No

Would you be interested in joining/ helping the Water User Associations?

Never	Rarely	Occasionally	Frequently
1	2	3	4

Yes No

How frequently do you participate in the events organized by NGOs or other groups?	1	2	3	4
How frequently do you participate in the events organized by religious groups?	1	2	3	4
How frequently do you participate in the activities of the Water User Associations?	1	2	3	4

Annex 3: Survey Responses

In total, 17 survey interviews were conducted with the members of the community from the three stations of Jalamah, Jawban and Mirkan, of which 9 were IDPs and 8 were locals; comprised of 3 females and 14 males.

1. Attitudes

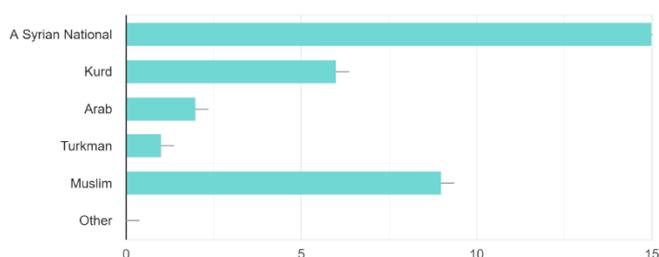
- 15 respondents feel positively towards all the residents of the village or their neighborhood.
- 13 people feel positively towards the displaced (IDP) households.
- 15 respondents feel positively towards their own community.
- All respondents feel positively or positively towards the Water User Associations.
- The responses towards Local Councils were mixed with 7 respondents feeling neutrally or negatively and 9 respondents feeling positively.
- 10 respondents feel positively towards the working of the IOs and INGOs, while 7 of them feel neutrally or negatively.

2. Collective Action

- 13 respondents showed willingness to a large extent to participate in the community-effort to solve the water issues in their day-to-day life.
- There were mixed responses to the probability of a conflict arising between the locals and the displaced populations in the upcoming month due to access to water resources. 8 respondents showed some shade of affirmation towards its probability, and 9 of them thought that it was not probable at all.
- 15 respondents were willing to peacefully negotiate with the help of the Water User Associations, in case any such issue arises. 2 of them were willing to negotiate to a certain extent.
- On being asked whether they would contribute to a conflict between two communities, all the respondents responded negatively.

3. Identity

Who do you identify as?
 17 réponses



- The respondents consider their own family as the most important part of their identity, followed by their religion, village, their own community, and the displaced populations in a descending order.

4. Emotions

- The respondents are most concerned about the welfare their own families, followed by their religion, village, Syria, their own community, and the displaced populations in a descending order.
- Most respondents have feelings of compassion, respect, and affection towards the Other group (the IDPs talked about the local population and the locals talked about the IDPs) with a clear absence of hatred, anger, and fear.

5. Trust

- The respondents responded skeptically when asked if they trust everyone in the community and affirmed that most people think about their own interests first.
- Most respondents trusted the WUAs the most amongst other stakeholders such as the local councils and the INGOs.

6. Threat Perception

- It was remarked that the local population and the displaced population have similar values but largely different lifestyles.
- One group does not feel threatened economically and socially due to the presence of the other.

7. Participation & Representation

- 12 out of 17 (70.6%) respondents would be interested in joining and helping the WUAs.

Annex 4: Project Impact

The survey interviewed 44 families, of which 59% are local and 41% are displaced

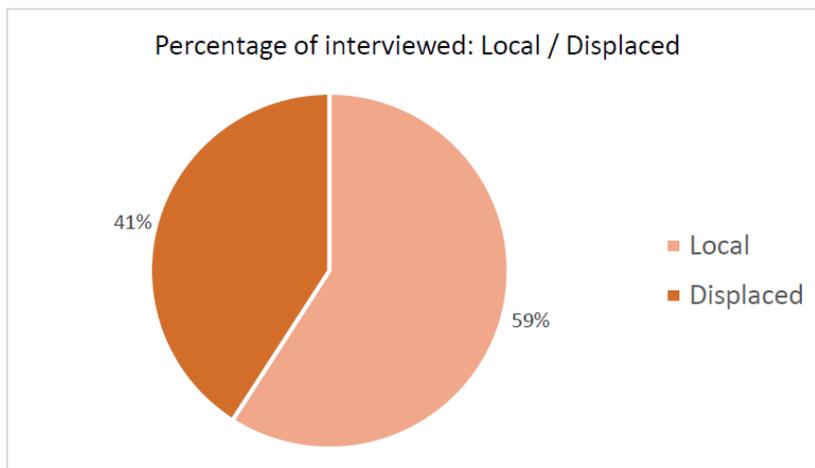


Figure 1: Percentage of interviewed: Local / Displaced

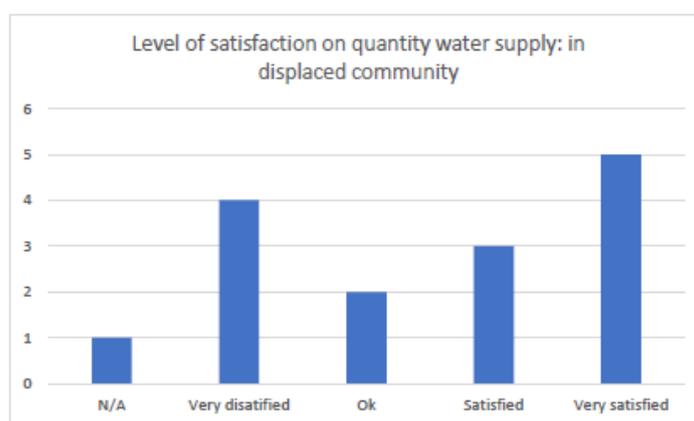


Figure 2: Level of satisfaction on quantity water supply: in displaced community

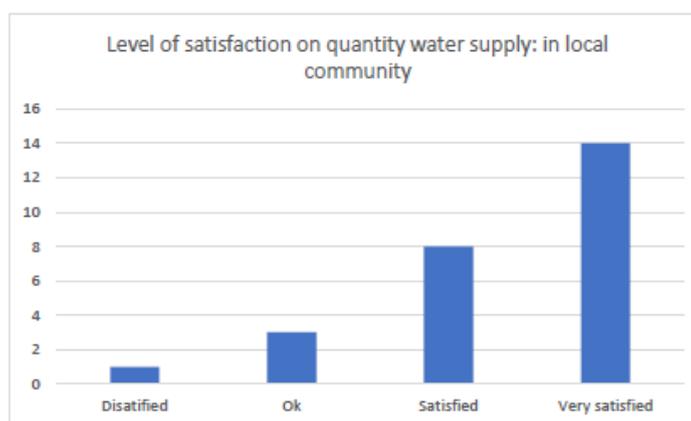
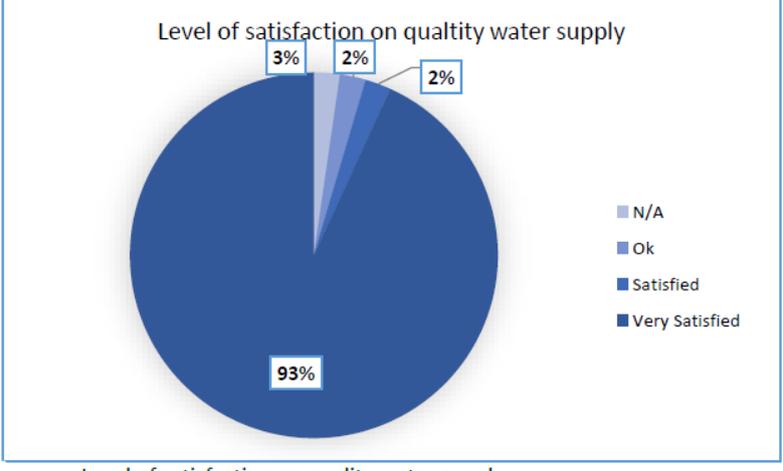
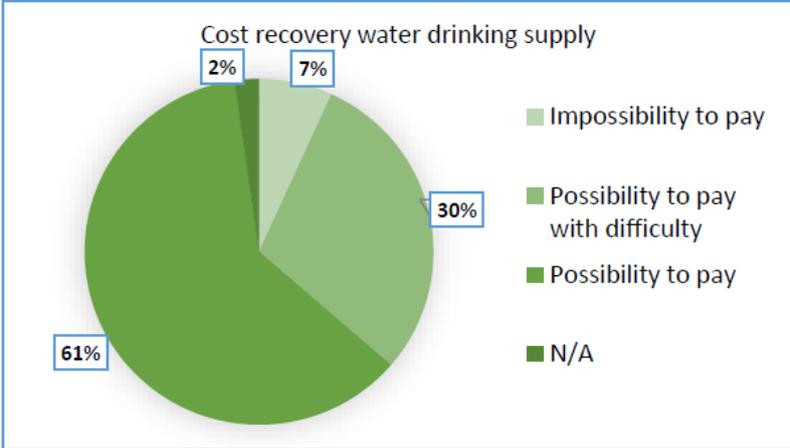


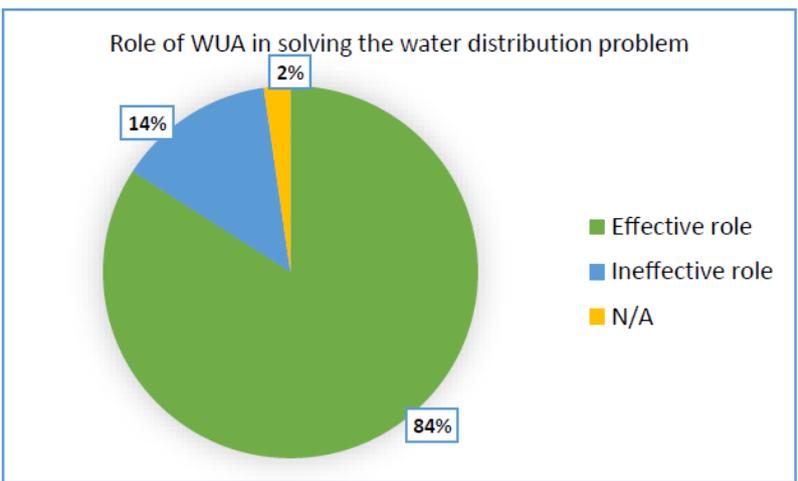
Figure 3: Level of satisfaction on quantity water supply: in local community



Level of satisfaction on quality water supply



Cost recovery water drinking supply



Role of WUA in solving the water distribution problem.

Annex 5: Cost Recovery

Table : Monthly Contribution of Beneficiaries

Village		Number of Families	Number of Houses*	Exempt (~5%)		Total	
Jawaban	Displaced	86	78	7	71* 2,000	142,000	300,000
	Local	198	90	11	79*2,000	158000	
Kuran**	Displaced	300	130	15	115*2,000	230,000	422,000
	Local	125	105	9	96*2,000	192,000	
Kurdan	Displaced	69	60	2	58*2,000	116,000	190,000
	Local	105	40	3	37*2,000	74,000	
Total		883	503	47			912,000

*There are many families in the same house. The contribution is per house.

* Amounts are in Syrian Pounds (SYP). 1 USD= 1,257.86 SYP

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